DOCUMENT RESUME

ED 070 765 SP 006 111

TITLE	The Effects of the Instructional Behavior and Skills Development Inservice Program upon Teacher Behavior. Final Report.
INSTITUTION	Missouri Univ., Columbia. Center for Educational Improvement.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
BUREAU NO	BR-1-G-055
PUB DATE	Nov 72
GRANT	OEG-7-71-0020(509)
NOTE	173p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Educational Change; Educational Improvement; Educational Research; *Inservice Teacher Education; Instructional Improvement; *Student Attitudes; *Teacher Behavior; *Teacher Workshops; Teaching Skills

ABSTRACT

This report studies the effects of the Instructional Behavior and Skills Development (IBS) in-service program on teacher behavior. The participants of both the control and experimental groups were full-time elementary teachers of the Springfield, Missouri Public Schools. Participants in the experimental group attended the IBS in-service program of 32 lessons. The lessons consisted of workshop time, classroom application time, and independent study time. Data were obtained from pretests, posttests, audiotaped observations of classroom behavior, and related research. Significant implications of data analysis indicate the IBS program for teachers a) can be a viable tool in changing selected participant behavior, b) may come to realization in the behavior and achievement of the students, and might modify the indices of verbal behavior on other teachers. Further conclusions and recommendations for research are suggested. A 44-item bibliography and appendixes are included. (MJM)

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FINAL REPORT

Grant No. OEG-7-71-0020(509)
Project No. 1-G-055

ED 070765

THE EFFECTS OF THE INSTRUCTIONAL BEHAVIOR AND SKILLS DEVELOPMENT INSERVICE PROGRAM UPON TEACHER BEHAVIOR

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University of Missouri-Columbia
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November, 1972

SP 006 111

U.S. Department of Health, Education, and Welfare
Office of Education
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Office of Education
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A portion of the research reported herein was performed pursuant to a grant from the U. S. Office of Education, Department of Health, Education, and Welfare. Grant Number OEG-7-71-0020(509). The opinions expressed herein, however, do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

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Chapter I

INTRODUCTION

The need for improving instruction in the educational setting has always been one of the primary concerns of our society. We have been negligent for sending out teachers each September ". . . with the impossible dream of doing the impossible job."[1] If improvements are to be made in our educational system, then society must become aware of the fact that our educational system is not perfect. Arthur Wirth addressed himself to this point when he stated,

> The first would be to admit how little we know about the complexities of advancing learning for the vast array of our children and youth. We know a lot, but not much in comparison to the areas where we are guessing or groping. . . . admission of our ignorance—would be no weakness, but a source of strength. To recognize the intricate problems involved in launching students on productive learning is to acknowledge that education poses questions that tax the finest minds among us. To begin a career in the classroom knowing that you can join with others in facing subtle puzzles that will test your best efforts for years is an incentive offered by very few jobs in the world of work.[2]

What then should be the major goal of quality teacher education? The goal must be to provide teachers with the necessary skills to become effective teachers. School administrators will come to realize that training programs will and can be developed to ensure

a better quality of instruction than presently exists in our schools. As they come to this realization, it becomes obvious that inservice training programs can become a mechanism to help teachers who are presently in the field working. Inservice programs have the advantage of working with personnel who have acquired some expertise in working with children. They allow teachers to try out or experiment with new techniques or methods tomorrow while they are still fresh in their minds instead of a year or two after conceptualization.

Background Information

Administrators from the Springfield, Missouri Public School system, cognizant of the need for staff development, approached staff members of the Center for Educational Improvement, College of Education, University of Missouri-Columbia, and requested that they design an inservice program which reflected the latest developments in educational theory and practice. The Center for Educational Improvement staff was experienced in the design and development of inservice programs and proceeded to help identify the performance objectives which the staff members of the Springfield, Missouri Public School system felt were needed in a program of this nature. From this collaboration, the inservice program titled "Instructional Behavior and Skills Development: Improving Instruction Through

Experientially Based Inservice Education"(IBS)[3] was designed and developed. The Center for Educational Improvement conducted the IBS program cooperatively with the Missouri State Department of Education and the Springfield, Missouri Public Schools for the staff members of the Springfield, Missouri Public School system who were responsible for teaching reading to disadvantaged students during the summer of 1971.

The IBS Inservice Training Program was conducted for thirty-two weeks during the 1970-71 school year. Three types of activities were arranged within the program to provide the teachers diversified experiences. These were (1) weekly workshops, (2) in-class experiential activities, and (3) independent study. Each week a three hour workshop was conducted on Wednesday afternoon from four to seven p. m. The allocation of time varied with each activity in accordance with the nature of the training component being treated. In addition to the thirty-two workshops, materials were developed and distributed which required a minimum of 211 hours of independent study in addition to 71 hours spent in in-class activities.

The Center for Educational Improvement designed the IBS Inservice Training Program around a series of discrete components that were closely interrelated. These components were

grouped into two subdivisions: those related to instructional-organizational skills and those related to instructional-behavioral skills.

The instructional-organizational skills entailed those skills that were needed by the inservice teacher to facilitate the design and development of their daily lesson plans in such a manner that the plans achieved the program goals. These skills consisted of units encompassing the orientation to the program, educational technology, self-directed learning, self-directed inquiry, teaching strategies, microteaching, and measurement and evaluation.

The instructional-behavioral skills were concerned with those behavioral skills used in the teaching process. These skills were taught through the Verbal Interactive Behavior (VIB) classification system.[4] The VIB classification system was created, developed, and tested for reliability by the Center for Educational Improvement.

Statement of the Problem

Today, our schools are being encouraged by critics on all sides to improve instruction. The modification of course content, organizational structure, or schedules in themselves have not demonstrated significant improvements in instruction. Current literature indicates the failure of these types of innovative programs may be due to the fact that improvement of instruction seems to

center on changing teacher behavior. Behavioral science research has substantiated the fact that the changing of behavior is a difficult task to accomplish. Both pre- and inservice teacher education programs have as their objectives the equipping of teachers with instructional behaviors that are successful in promoting achievement on the part of the students.

Many hours of inservice education are spent by teachers in behavior modification.[5] Inservice education has an advantage over preservice education in that it allows a teacher to modify or change his behavior immediately. Inservice education provides opportunity for a teacher to study the effects of his changed instructional behavior upon the behavior and learning of the students in the classrooms.

This investigation was concerned with the feasibility of changing the instructional behavior and attitudes of teachers who participated in an inservice training program so that they differed from a control group of teachers who did not participate in the inservice training program. Secondly, what effect will this inservice training have on the verbal behavior of their students?

Statement of the Purpose

The purpose of this investigation was to add to the body of knowledge concerning modification of teacher attitudes and instructional behavior. Specifically, it was accomplished through

analyzing the instructional behavior and attitudes of a group of elementary teachers, along with the verbal behavior of their students who participated in the thirty-six week IBS Inservice Training Program.

Assumptions

For the purposes of this study, it was assumed that:

1. the instruments used in this study were valid and reliable instruments for their particular measuring purposes.

2. the elementary school teachers in the Springfield, Missouri Public School system who participated in this study were representative and characteristic of the teachers working within urban elementary schools throughout the United States.

3. the taped lessons represented a valid sample of the teaching method used by the individual participant.

Need for the Study

Several contemporary authors in their writings during the last few years have made the public doubtful, or at least questioning, as to whether or not the schools are accomplishing their goals. John Holt expressed this attitude when he wrote about his math class in the following way.

> Everyone around here talks as if, except for a few hopeless characters, these children know most of the math they are supposed to know. It just isn't so. Out of the

> twenty kids in the class, there are at least six who don't even know simple "addition facts," and many more who, whether they know the facts or not, habitually add by counting on their fingers, usually keeping them well out of sight. There are still more who don't understand and can't do multiplication and division. I hate to think what we will find about their understanding of place value.[6]

Gardner also expressed this attitude when he stated,

> Much education today is monumentally ineffective. All too often we are giving young people cut flowers when we should be teaching them to grow their own plants. We are stuffing their heads with the products of earlier innovation rather than teaching them how to innovate. We think of the mind as a storehouse to be filled rather than as an instrument to be used.[7]

It is very easy to criticize the present condition witnessed in our schools. But along with this criticism comes the realization that there is need for change and improvement. Schools need to accept the challenge of providing the best type of educational experience for all students. One way to meet this challenge would be the implementation of proven programs in preservice and inservice training for teachers which focus upon the needs of the learners. Gage discussed the values of pre- and inservice training in the following manner.

> One part of the massive enterprise called teacher education is the preparation of teachers before they start teaching in a school system. Such "pre-service" teacher education is universally regarded as needing supplementation by further effort, called "in-service" teacher education, after teachers have gone to work in the classroom. Both kinds of teacher education are aimed at equipping teachers with knowledge, understanding, and ways of behaving that are useful in promoting their students' achievement of educational

objectives. So, teacher education is important almost to the degree that education itself is important.[8]

Teaching is behavior, and as such it is subject to investigation and change. Teachers function in a milieu that requires conscious discrimination among the various instructional behaviors to confront the immediate situation of what is occurring in the classroom.

Amidon addressed himself to the vital nature of this concern.

> Only the teacher can make changes in his classroom behavior. Others may help him in the process of change, but they cannot do so unless the teacher desires a change. The desire to understand and improve one's own behavior is, then, the major prerequisite of behavioral change. Not only must the teacher have the desire to change, but he must be willing to put forth the time and effort required to look at himself objectively, and to accept professional guidance.[9]

He later stated,

> Planned programs for the inservice training of teachers benefit from the services of trained professional staff. . . . Those staff members should be skillful in working with people in individual and group situations and possess knowledge of interpersonal and group dynamics. Leaders such as these are more quickly able to establish, in the laboratory workshop, the kind of climate most conducive to understanding behavior and changing it.
>
> In this climate of acceptance and support, a teacher can more readily (1) accept information about his behavior without becoming defensive, and (2) be free to experiment with new skills without fear of criticism. Such a climate is built by a leader and participants who try to look at the teacher's behavior objectively and refrain from making judgments about behavior being either "desirable" or "understandable."[10]

Since the focus of this study was the modification of teacher and student behavior, it would be of value to know if an experiential inservice training program could motivate a teacher to become aware of and accept the need for behavioral change. By identifying teachers who are amenable to change, it might be possible to identify the characteristics of classroom environments which are also conducive to change.

With critics such as Holt[11] and Gardner[12] expressing disbelief in the values of instruction as it presently exists in our schools, and Gage's[13] belief that teacher education is as important as education itself, along with Amidon[14] stressing the need for behavioral change on the part of teachers, educators need to know if experiential inservice training programs have any relationship to teacher behavior modification. If a significant relationship between the two variables was found to exist, educators could become more sensitive to the value of inservice programs for behavioral modification of teachers, as well as the influence on student behavior.

Limitations of the Study

The validity of this study was limited in that random assignment could not be made to the experimental and control groups.

Scope of the Study

This study was limited to public elementary teachers in the Springfield, Missouri Public Schools who were classified as Title I teachers of the Elementary and Secondary Education Act of 1965, amended.

Description of the Control Group

The control group consisted of twenty-three elementary school teachers who were employed as full-time teachers in the Springfield, Missouri Public Schools during the 1970-71 school year. Volunteers were assigned to the control group, who did not participate in the IBS inservice training program but who taught in the same elementary schools as the teachers in the experimental group. The teachers in the control group did not participate in any special inservice training programs, except those workshops and faculty meetings to which all faculty members of the Springfield, Missouri Public Schools were invited.

Description of the Experimental Group

The experimental group consisted of twenty-five elementary teachers from the Springfield, Missouri Public School system selected from the total population of those participants who volunteered to participate in the IBS inservice training program.

Selection of the twenty-five teachers was limited to teachers on full-time teaching status of elementary classes during the 1970-71 school year.

Research Hypotheses

This research study collected and analyzed data pertinent to the testing of the following research hypotheses.

1. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate a more favorable mean attitude when compared to the mean attitude of the elementary school teachers comprising the control group as measured by the Minnesota Teacher Attitude Inventory.

2. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate less dogmatism when compared to the elementary teachers comprising the control group as measured by Rokeach's Dogmatism Scale.

3. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate more favorable values concerning disadvantaged students when compared to the elementary teachers comprising the control group as measured by the Values Concerning Disadvantaged

Pupils Questionnaire.

4. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate a better mean knowledge of reading skills when compared to the elementary teachers comprising the control group as measured by An Inventory of Teacher Knowledge of Reading.

5. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate their perception of the school's organizational climate as more closed when compared to the elementary teachers comprising the control group as measured by the Organizational Climate Description Questionnaire.

6. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in the Degree of Student Participation when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

7. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in the Frequency of Speaker Change when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

8. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in the Frequency of Encouragement when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

9. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate a decrease in The Degree to Which the Teacher Dominated the Discussion when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

10. At the completion of the inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in the Effectiveness of Teacher Talk to Stimulate Student Talk when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

11. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in Student Initiation of their classroom verbal behavior when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

12. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in Student Questions of their classroom verbal behavior when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

13. At the completion of inservice training, the elementary school teachers comprising the experimental group will demonstrate an increase in Student Response of their classroom verbal behavior when compared to the elementary teachers comprising the control group as measured by the Verbal Interactive Behavior analysis system.

Definition of Terms

Achievement of program. The desired directional change that can be observed in teacher behavior modification as illustrated by a change in general teacher attitudes, teacher dogmatism, teacher values concerning disadvantaged students. It is also observed in teacher and student behavior as measured by the VIB classification system.

This verbal behavior change is measured by the VIB analysis system in the following ways.

1. The Degree of Student Participation
2. The Frequency of Speaker Change
3. The Frequency of Encouragement
4. The Effectiveness of Teacher Talk to Stimulate Student Talk
5. The Degree to Which the Teacher Dominated the Discussion
6. Student Initiation
7. Student Question
8. Student Response

Attitude. The mental set or stand an individual upholds about objects, issues, persons, groups, or institutions.

Disadvantaged pupils. The child who exhibits evidence of social, cultural, and economic deprivation in comparison with other children to the degree that they met the Federal guidelines for Title I, Public Law 89-10.

Dogmatism. The degree to which the mind of the teacher is psychologically open or closed with respect to different situations; specifically, a score as measured by Rokeach's Dogmatism Scale.

Elementary school teacher. A person engaged in the act of teaching full-time in grades K through 6 to the same group of youngsters each school day.

Inservice training program. Any type of learning program of any duration of time designed to help teachers while they are actively engaged in the teaching process.

Instructional Behavior and Skills Development (IBS). An inservice teacher education program that is experientially based and designed to improve instruction through modification of teacher behavior.

Instructional pacquette. A teacher-developed self-contained instructional unit containing the following: (1) Behavioral Objectives, (2) Planning, (3) Media, (4) Differentiated Teaching Strategies, and (5) Measurement and Evaluation.

Organizational climate. The "Atmosphere" or environment of an organization or institution which, although relatively intangible, is comparable to "feel" or "personality."[15] In a general sense, it refers to prevailing characteristics of an organization's environment. Specifically, that which is measured by the Organizational Climate Description Questionnaire (OCDQ).

Values. Those principles, attitudes, and beliefs that guide human conduct. They form the basis for the criteria which influence an individual's preferences and goals.[16] Specifically, a score as measured by the Values Concerning Disadvantaged Pupils Questionnaire (VDPQ).[17]

Verbal Interactive Behavior (VIB). An eleven category system that classifies classroom behavior into one of four major divisions: (1) teacher talk, (2) student talk, (3) silence, and (4) confusion.[18]

Notes to Chapter I

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2. Ibid., p. viii (Arthur Wirth in the "Introduction").

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6. John Holt, How Children Fail (New York: Dell Books, 1964), p. 171.

7. John W. Gardner, No Easy Victories (New York: Harper and Row, 1968), p. 68.

8. Edmund J. Amidon and Ned A. Flanders, The Role of the Teacher in the Classroom (Minneapolis: Association for Productive Teaching, Inc., 1967), pp. 1-2.

9. Ibid., p. 2.

10. Ibid., pp. 3-4.

11. Holt, op. cit.

12. Gardner, op. cit.

13. Gage, op. cit.

14. Amidon and Flanders, op. cit.

15. Robert G. Owens, Organizational Behavior in Schools (Englewood Cliffs, New Jersey: Prentice Hall, 1970), p. 167.

16. Frederick John Gies, "Values Concerning Disadvantaged Pupils in Differing Organizational Climates" (unpublished Doctor's dissertation, University of Missouri-Columbia, 1970), p. 16.

17. Ibid., pp. 32-47.

18. Center for Educational Improvement, Introduction to Verbal Interactive Behavior, Handbook for Inservice Teachers: Unit I, op. cit.

Chapter II

RELATED RESEARCH

The purpose of this chapter is to explain and clarify the theoretical rationale of the problem under consideration. The assessment of an experientially based inservice teacher education program that is based upon the use of verbal interaction analysis to change teacher behavior was the major topic of the literature search.

Ben M. Harris, et al., in his book entitled Inservice Education: A Guide to Better Practice, gives four reasons for the importance of inservice education programs. They are:

> 1. Preservice preparation of professional staff members is rarely ideal and may be primarily an introduction to professional preparation rather than professional preparation as such.
>
> 2. Social and educational change makes current professional practices obsolete or relatively ineffective in a very short period of time. This applies to methods and techniques, tools and substantive knowledge itself.
>
> 3. Coordination and articulation of instructional practices requires changes in people. Even when each instructional staff member is functioning at a highly professional level, employing an optimum number of the most effective practices, such an instructional program might still be relatively uncoordinated from subject to subject and poorly articulated from year to year.

4. Other factors argue for inservice education activities of rather diverse kinds. Morale can be stimulated and maintained through inservice education, and is a contribution to instruction in itself, even if instructional improvement of any dynamic kind does not occur. [1]

The inservice program is not only to be used as a tool for progress; it is also a symbol of belief in the improvability of the individual. This being so, it is extremely unfortunate that inservice programs, in practice, often fail to obtain their expected outcomes. Frazier, [2] and Henry [3] have attested in their research studies and surveys to the precarious nature of some inservice programs.

What are the causes for the traditional mistakes and failures of inservice programs? Although rigorous studies are rarely reported which shed light on these failures, Harris, et al., suggests the following areas as causes for serious mistakes.

1. Failure to relate inservice program plans to genuine needs of staff participants.

2. Failure to select appropriate activities for implementing program plans.

3. Failure to implement inservice program activities with sufficient staff and other resources to assure effectiveness. [4]

A common need of all classroom teachers that has received a good deal of attention the last several years is teacher behavior. Amidon addresses himself to the concern that teachers should study their behavior when he states,

> By studying his own behavior in some systematic, objective manner, the teacher may gain further insight into his own pattern of influence. As he gains insight into his behavior, he may decide, as many teachers have decided, that he wants to change his behavior because he is either not achieving what he thought he was achieving, or he is not achieving what he has now decided he wants to achieve on the basis of new insights about how children learn.[5]

Hughes,[6] Ober,[7] and Evans[8] have all reiterated the point that the teacher is the most important variable in the classroom, and that the most persuasive and continuous behavior of the teacher is verbal interaction.

Verbal interaction analysis systems, such as Flanders' system,[9] analyze the verbal social skills which a teacher utilizes in class. In Flanders' system, all verbal behavior is forced into ten categories. Seven of the categories are used to classify teacher talk and two are used for types of student talk.[10] Interaction analysis, as a system, provides teachers with a common set of cognitive organizers which describe the verbal activities of the classroom learning situation.

Interaction analysis makes its major contributions to education in bridging the gap between theory and practice. By obtaining feedback about his own behavior, the teacher can begin to do much the same kind of thing that the researcher does; that is, by comprehending his teaching behavior in specific classes he can generalize to his total teaching wealth. The result will be the

acquisition of insight into his teaching, thereby improving his skill as a teacher.[11] Interaction analysis offers a teacher something definite, both in the form of value sources and a subsequent prognosis that can be utilized in improving his teaching.

Numerous studies have had interaction analysis training in one form or another as the single treatment variable to change the verbal behavior of preservice and inservice elementary and secondary teachers. Studies by Kirk,[12] Simon,[13] Hough and Amidon[14] employed the Flanders system in their training specifically with elementary student teachers. Generally, their findings showed that elementary student teachers were found to use significantly different patterns of verbal classroom behavior when they received training in interaction analysis.

Hoosein[15] investigated the effects of teacher behavior modification training through an inservice program upon the level of student inquiry. A segment of the inservice program was devoted to instruction in the use and utilization of the Verbal Interactive Behavior analysis system. Empirical findings of this study led to the conclusion that it was possible to modify both teacher and student verbal instructional behavior through inservice training for secondary school teachers.

It seems beneficial, then, that a teacher should learn as much as he can about his own methods of working with and influencing pupils. A program of inservice training would seem to be more helpful in this direction than attempts by the teacher alone. Amidon addressed himself to this point when he described group inservice programs.

> A program directed toward this end seems more productive when it includes the following: (1) a professional staff, (2) a climate of acceptance and support, (3) an opportunity for behavioral involvement, (4) encouragement and opportunity to experiment with and practice communication skills, and (5) an effective system of feedback.[16]

An inservice program whose only goal is to train teachers in the use of an interaction analysis system, such as Flanders' system or the Center for Educational Improvement's VIB system, still leaves much to be desired. An interaction analysis system is only a tool, and for this reason all it can possibly do is translate the audible behavior to a visible representation as seen in a matrix. An inservice program with only this goal in mind commits the serious mistake of failing to relate inservice program plans to genuine needs of staff, as Harris, et al., have pointed out.[17]

The Instructional Behavior and Skills Development Inservice Training Program does use the VIB analysis system as a tool in its program. The program is concerned with those behavioral skills relating to verbal interactive behavior that can be used in the

classroom. In addition, teachers were assisted in modifying their personal teaching behavior by working with other components of the program, such as Microanalysis, Behavioral Objectives, Measurement and Evaluation, Preparing Instructional Pacquettes, etc.

Notes to Chapter II

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9. Amidon and Flanders, op. cit.

10. Ibid., p. 7.

11. Edmund Amidon, "Interaction Analysis Applied to Teaching," Bulletin of the National Association of Secondary School Principals, Vol. L (December, 1966), p. 93.

12. Jeffrey Kirk, "Effects of Training in Interaction Analysis on the Behavior of Student Teachers in Elementary Schools," Interaction Analysis: Theory, Research and Application, Edmund Amidon and John Hough (eds.) (Reading, Massachusetts: Addison-Wesley, 1967).

13. Anita Simon, "The Effects of Training in Interaction Analysis on the Teaching Patterns of Student Teachers in Favored and Non-Favored Classes" (unpublished Doctor's dissertation, Temple University, 1966).

14. Edmund Amidon and John Hough (eds.), "Behavioral Change in Student Teachers," Interaction Analysis: Theory, Research and Application (Reading, Massachusetts: Addison-Wesley, 1967), pp. 307-314.

15. Abdool N. Hoosein, "The Effect of Teacher Behavior Modification Training Upon the Level of Student Inquiry" (unpublished Doctor's dissertation, University of Missouri-Columbia, 1972).

16. Amidon, The Role of the Teacher in the Classroom, op. cit., p. 5.

17. Harris, op. cit., p. 4.

Chapter III

RESEARCH PROCEDURES

The Research Design

Identification of significantly modified instructional behaviors of elementary school teachers and the verbal behaviors of their students after completion of an intensive thirty-six week inservice training program was the general purpose of this study. Harris[1] pointed out the importance of inservice training programs and their advantages in behavior modification for the teaching staff. Amidon[2] clearly stated that there was a definite need for teachers to study their behavior so that they gained insight into their patterns of influence. It was also stated by Hughes[3] that the verbal behavior of the teacher in the classroom was the most continuous and persuasive behavior that he portrayed.

Other behaviors or attitudes that a teacher portrays in a classroom are equally important. Null[4] conducted a study utilizing the Organizational Climate Description Questionnaire and the Minnesota Teacher Attitude Inventory and found a firm relationship between the attitudes of teachers toward their pupils in their classes and the manner in which these teachers perceived the eight

dimensions of organizational climate.

Hoosein,[5] in a study of secondary teachers who participated in an inservice training program, found that the verbal behavior as illustrated in "Student Questions" and "Student Inquiry" could be modified.

The behavior that a teacher displays toward the disadvantaged can be assessed, as Gies[6] pointed out, by the Values Concerning Disadvantaged Pupils Questionnaire. This instrument was designed to measure the values of teachers toward the disadvantaged.

The attitudes that a teacher portrays in relation to his general authoritarianism and intolerance can have an effect on the milieu of the classroom. The difference between teachers in relation to open and closed belief systems will have an effect on their change in values.[7]

This study attempted to examine the viable instructional behaviors cited above to determine what effect an inservice training program had on these variables. Improvement of instruction can be predicated on teacher behavioral change and, therefore, this study attempted to determine statistically the measurable differences in teacher behavior and attitudes after an inservice training program, as well as the verbal behavior of their students. These variables were measured by the following instruments.

1. Minnesota Teacher Attitude Inventory
2. Rokeach's Dogmatism Scale
3. Values Concerning Disadvantaged Pupils Questionnaire
4. An Inventory of Teacher Knowledge of Reading
5. Organizational Climate Description Questionnaire
6. Verbal Interactive Behavior analysis system

This study was planned to facilitate an experimental design which included posttesting of experimental and control groups on the measures listed above. Twenty-three teachers volunteered for the control group from the population of teachers in those elementary schools where experimental teachers were employed. The investigator of this study had the responsibility of selecting and assigning from the population of sixty-nine teachers, counselors, and health services personnel who participated in the inservice program the twenty-five elementary teachers who comprised the experimental group. The IBS inservice training program constituted the treatment for the teachers in the experimental group.

The Treatment Procedures

The IBS Inservice Training program constituted the treatment for the teachers in the experimental group and was conducted from September, 1970 through May, 1971. The

instructional phase of the program was organized around a series of thirty-two lessons. Each lesson consisted of workshop time, classroom application time, and independent study time. During the workshops, the inservice teachers received instruction relating to the following skills.[8]

I. Instructional-Organizational Skills, which included
   (a) Orientation to the program
   (b) Educational Technology
   (c) Self-Directed Learning
   (d) Self-Directed Inquiry
   (e) Differentiated Teaching Strategies
   (f) Microteaching
   (g) Measurement and Evaluation

II. Instructional-Behavioral Skills
   (a) Phase I: Inservice teachers developed and demonstrated expertise in analyzing verbal interactive behavior through the utilization of the VIB instrument.
   (b) Phase II: Inservice teachers attempted to change their personal teaching behavior to model teacher behavior prescribed by the training program.

The independent study periods were utilized for developing increased understanding of the program components, acquiring skill in modifying teacher-pupil interactive behavior, designing instructional pacquettes, and implementing the procedures and techniques of educational technology. The activities for the inservice teachers culminated in the joining together of all the skills they had acquired and applying these skills in the development phase of writing their own instructional pacquettes. Appendix A contains a description of the components of the IBS program in relation to the amount of time spent in each activity. The rationale for the IBS program, as stated by its developers, was as follows.

> It is no longer adequate or acceptable to regard learning as a passive activity which involves the teacher as the sole selector and dispenser of knowledge and the learner as the absorbing blotter primed to regurgitate bits and pieces of information or facts upon demand by the teacher. The move must be away from the idea that learning is something that a teacher does to a group of students.
>
> The role of the teacher as it is now frequently envisioned—that of drillmaster, information dispenser, grader, and scholastic giant-maker—has failed to lead toward optimum learning for disadvantaged pupils. Research conducted by the Center for Educational Improvement at the University of Missouri-Columbia and other research organizations demonstrates that teacher dominated classrooms, defined as "closed climated," do not provide the type of educational environment conducive to learning for disadvantaged pupils. Furthermore, additional research indicates that the values which teachers hold concerning disadvantaged pupils in "closed climated" educational environments are less positive than in more "open climated" situations. 9

The workshops were conducted by staff members from the Center for Educational Improvement and the University of Missouri-Columbia, who included Dr. B. Charles Leonard, Dr. Frederick John Gies, Dr. Norris Fox, Dr. Jon Denton, Dr. Peter Hasselriis, Dr. Veralee Hardin, Mr. Joseph Ryan, and Mr. Edmund Ciaglia. They were assisted by Mr. Jack Looney, selected from the staff of the Springfield, Missouri Public Schools. The instructional staff members also provided individualized assistance to the inservice teachers as they engaged in their independent study.

Collection of the Data

Data for this study were obtained from posttests of the instruments mentioned previously given to each member of the control and experimental groups. Data were also obtained from the audiotaped observations of classroom verbal behavior which were recorded on cassette tape for each member of the two groups.

The posttests were administered to the control and experimental groups in May, 1971. A twenty minute audio-recorded segment of classroom verbal behavior of each of the teachers in the control and experimental groups was obtained during the last week of April, 1971 and the first week of May, 1971.

Collection of Interaction Data

Audio cassette tape recorders were provided for each teacher in the control and experimental groups for purposes of recording a twenty minute segment of classroom verbal interactive behavior. Each twenty minute segment was coded utilizing the VIB analysis instrument by trained coders whose inter-coder reliability was 0.86. This level exceeded the level of inter-coder reliability suggested by Flanders necessary for research purposes.[10] Consistent with the accepted use of the VIB system, the classroom interaction was codified each three seconds and/or each category change.

Optical scan sheets used for coding were fed into a computer which printed out the completed 11 by 11 matrix and indices. (See Appendix B for information regarding matrix construction.)

To express the various qualities of the classroom verbal interactive behavior in a quantitative way, the tally totals of selected matrix areas can be combined and compared with the total number of teacher and student talk observations so that the value of the ratio will reflect the following indices.

Index 1: The Degree of Student Participation

Index 2: The Frequency of Speaker Change

Index 3: The Frequency of Encouragement

Index 4: The Degree to Which the Teacher Dominated the Discussion

Index 5: The Effectiveness of Teacher Talk to Stimulate Student Talk[11]

Appendix B contains information pertinent to matrix areas.

Analysis of the Data

Collected data of this investigation are presented in narrative and/or tabular form. A profile of the data collected for each of the teachers of the control and experimental group are presented illustrating the scores for each of the teachers in the two groups on the following measures.

1. Minnesota Teacher Attitude Inventory
2. Rokeach's Dogmatism Scale
3. Values Concerning Disadvantaged Pupils Questionnaire
4. An Inventory of Teacher Knowledge of Reading
5. Organizational Climate Description Questionnaire

Tables were constructed to illustrate the difference in means and standard deviations of the posttest scores between the experimental and control group for each of the variables under study.

The significance of mean differences between the experimental and control groups on the variables of general teacher

attitudes, teacher dogmatism, teacher values concerning disadvantaged students, and teacher knowledge of reading was determined by employing a one-tailed "t" test. The one-tailed "t" test was utilized on the above data because direction of change was hypothesized between the two groups. To test the variance in mean gain, the two-tailed "F" test was employed. The two-tailed "F" test was used on the data because it was believed that the two groups were from the same population. The null hypotheses were tested in relation to each of the research hypotheses stated in Chapter I using the .05 level of confidence.

The classroom verbal interactive behavior data collected for the experimental and control groups were analyzed by employing the nonparametric Mann-Whitney U test for a one-tailed test. The one-tailed test was used since the research hypotheses forecasted the direction of change between the two groups. Tables were constructed to illustrate the frequency and its related percentage for the five indices and the three student verbal behavior categories, as well as the differences in Mann-Whitney U test values and their related z scores.

The Instruments

The Organizational Climate Description Questionnaire (OCDQ) contains sixty-four Likert-type items. Halpin and Croft

believed three major contributions had been made by their research on organizational climates. They described these contributions as follows.

> 1. We have developed an instrument, the Organizational Climate Description Questionnaire, which can facilitate research on organizational climates, whether in schools or in other types of organizations.
>
> 2. We have devised a way of conceptualizing six major types of organizational climates and have identified three profile factors which can prove useful in subsequent research on leadership and organizational behavior.
>
> 3. We have noted the pivotal importance of the concept of "authenticity" in behavior and have suggested that future research in the OCDQ be conjoined with a set of parallel research projects on the problem of "authenticity."[12]

The six distinct types of organizational climate profiles devised by Halpin and Croft ranged on the continuum from "open" through "autonomous," "controlled," "familiar," and "paternal." The OCDQ described the school climate in terms of the perceptions of its staff regarding the school's adaptability to change.[13]

Referring to the validity of the OCDQ, Halpin said,

> It is impossible to demonstrate the "validity" of any taxonomy or any typology. The test of a typology must be in its usefulness. What can be done with it that cannot be done without it? This is the heuristic test.[14]

However, in a research study conducted by Smith using the OCDQ he asserted,

> . . . the Organizational Climate Description Questionnaire was externally consistent as well as internally so. In addition, the empirical findings appeared to be consistent with the internal definition of organizational climate as devised by Halpin and Croft.[15]

The Values Concerning Disadvantaged Pupils Questionnaire (VDPQ) was developed by Gies[16] for use in his doctoral research. Gies stated that it ". . . measures the values of teachers concerning disadvantaged pupils and the values of principals concerning disadvantaged pupils as perceived by their teachers."[17] After an extensive search of the literature was made, seventy-four items were included on the first draft of the VDPQ of which thirty-seven statements were assigned to the positive group and thirty-seven were assigned to the negative group. The questionnaire was developed in the form of a Likert-type ordinal scale which consisted of five points including "accept strongly," "accept moderately," "feel neutral," "reject moderately," and "reject strongly."

Gies reported in his dissertation that,

> The instrument is two-dimensional in that each responding teacher is required to react to each value by marking in the appropriate category, according to the previously stated scale, the extent to which he accepts or rejects the given value as well as the extent to which he perceives his principal to accept or reject the value. A numerical value of five assigned to positive value statements for a response of "accept strongly," and is successively reduced to one for a response of "reject strongly." For the negative value statements the numerical value awarded is reversed with a five assigned to "reject strongly," and a one assigned to "accept strongly."

> Each teacher obtains two scores on the VDPQ. One score is calculated on the values of the teacher dimension of the VDPQ and the other on the values of the principal as perceived by the teacher.[18]

For purposes of this investigation, only those scores that indicated the values of the teacher dimension on the VDPQ were reported for the control and experimental groups.

The VDPQ was pilot tested to ascertain its stability of measurement. An item analysis based upon the pilot group yielded correlation coefficients of 0.942 for the values of teachers and 0.946 for the values of principals as perceived by teachers.[19]

In addition to an item analysis which was conducted to establish the reliability of the set of seventy-four items on the VDPQ, a factor analysis was conducted which provided the data necessary to exclude seventeen factors. On the basis of the item analysis and factor analysis, it was decided to reduce the number of items to forty-four. An item analysis and factor analysis was then conducted on these forty-four items, two additional items were excluded which demonstrated negative correlations. The remaining forty-two items constituted the final version of the VDPQ which was administered to the control and experimental groups. Gies reported that the

> . . . forty-two items contained on the final version of the VDPQ were subjected to an item analysis utilizing the Kuder-Richardson 20 formula and yielded correlation coefficients of 0.929 for the values of teachers and 0.922 for the values of principals as perceived by teachers.[20]

Cook, et al., stated that the Minnesota Teacher Attitude Inventory (MTAI) was,

> . . . designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and indirectly how well satisfied he will be with teaching as a vocation.[21]

For purposes of this investigation, the MTAI was used to assess the differences in the attitudes toward teaching held by the control and experimental groups. The instrument contained 150 items which have been shown to be both valid and reliable.[22]

Form E of Rokeach's Dogmatism Scale has for its primary purpose the measurement of individual differences in openness or closedness of belief systems.[23] The author suggested that the basic characteristic that defines the extent to which a person's system is open or closed would be the extent to which the person can receive, evaluate, and act on relevant information received from outside on its own intrinsic rewards. These are not hindered by unimportant factors in the situation arising from within the person or from the outside.[24]

The Dogmatism Scale, as designed by Rokeach, has been through five editions, all aimed at increasing the scale's reliability. The author reported that for Form E of the scale, the reliability ranged from 0.68 to 0.93 for different groups of subjects.[25]

Form E contained 40 items, the responses of which were arranged on a continuum from strong agreement to strong disagreement. A subject was required to respond to each item on a scale ranging from -3 to +3, with the 0 point excluded in order to force responses toward disagreement or agreement. For scoring purposes, the scale was converted to a 1 to 7 scale by adding a constant of 4 to each score.

Drs. Veralee Hardin and A. Sterl Artley of the University of Missouri-Columbia developed an Inventory of Teacher Knowledge of Reading[26] for teachers of kindergarten through sixth grade. This instrument was included in the posttest measures so that change in a common content area could be identified. This instrument was designed to measure the extent of a teacher's professional understanding of reading and the reading process. Originally, the authors developed the instrument to include eight areas of reading which included word perception, silent and oral reading, evaluation, diagnosis and correction, reading readiness, comprehension and critical reading, differentiation of instruction, philosophy and goals of instruction, and reading approaches and materials. The instrument was administered to the control and experimental groups during its developmental stage. At the time of its administration, it contained 100 items which required a yes/no response. The instrument was found to have a Kuder-Richardson 20 reliability of .90.

The verbal communication behavior was analyzed by utilizing the Verbal Interactive Behavior (VIB) classification system.[27] Paden[28] found the VIB instrument to have an inter-coder reliability of 0.95 and an internal validity score of 0.92. The VIB system was concerned with the verbal behavior as it occurs in the classroom. All classroom interaction can be coded into one of the mutually exclusive VIB classifications. The VIB system contained eleven classifications (see Appendix C) which identified all classroom behavior into one of four major divisions: (1) teacher talk, (2) student talk, (3) silence, and (4) confusion.

The division of teacher talk can be further divided into verbal behavior that fosters inquiry and verbal behavior that hinders inquiry. Teacher talk categories that foster inquiry are: (a) using student ideas, (b) positive reinforcement, (c) teacher questions. Teacher talk categories that hinder inquiry are: (a) teacher lecture, (b) directing students, and (c) negative reinforcement.

The three categories included under the division of student talk are: (a) student initiation, (b) student questions, and (c) student response. All three are considered desirable classroom behaviors, but student initiated response is the goal of "inquiry teaching."[29]

The third division is classroom silence which contains one category—silence. The fourth general division is classroom confusion, which also contains one category which is labeled "confusion." Appendix C contains a summary of these categories.

Notes to Chapter III

1. Ben M. Harris, et al., Inservice Education: A Guide to Better Practice (Englewood Cliffs, New Jersey: Prentice Hall, 1969), pp. 3-4.

2. Edmund J. Amidon and Ned A. Flanders, The Role of the Teacher in the Classroom (Minneapolis: Association for Productive Teaching, Inc., 1967), pp. 1-2.

3. Marie M. Hughes, "What is Teaching? One Viewpoint," Educational Leadership, Vol. XIX (January, 1962), pp. 251-259.

4. Eldon J. Null, "The Relationships Between the Organizational Climate of a School and Personal Variables of Members of the Teaching Staff" (unpublished Doctor's dissertation, University of Minnesota, 1965), p. 258.

5. Abdool N. Hoosein, "The Effect of Teacher Behavior Modification Training Upon the Level of Student Inquiry" (unpublished Doctor's dissertation, University of Missouri-Columbia, 1972).

6. Frederick John Gies, "Values Concerning Disadvantaged Pupils in Differing Organizational Climates" (unpublished Doctor's dissertation, University of Missouri-Columbia, 1970), p. 1.

7. Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), p. 337.

8. Center for Educational Improvement, Instructional Behavior and Skills Development: Improving Instruction Through Experientially Based Inservice Education (Columbia: College of Education, University of Missouri, 1969), pp. 15-16.

9. Ibid., pp. 1-2.

10. Edmund J. Amidon and John B. Hough (eds.), Interaction Analysis: Theory, Research and Application (Reading, Massachusetts: Addison-Wesley, 1967), p. 166.

11. Center for Educational Improvement, "A Technique for Generalizing VIB Matrix Results (Revised)," mimeographed (Columbia: College of Education, University of Missouri, not dated).

12. Andrew Halpin and Don Croft, "The Organizational Climate of Schools," Administrator's Notebook, Vol. XI (March, 1963), p. 1.

13. Andrew Halpin, Theory and Research in Administration (New York: Macmillan Company, 1966), p. 135.

14. Andrew W. Halpin, Administrative Theory in Education (Chicago: The Midwest Administration Center, University of Chicago, 1958), p. 225.

15. David C. Smith, "Relationships Between External Variables and the Organizational Climate Description Questionnaire" (unpublished Doctor's dissertation, Northwestern University, 1966).

16. Gies, op. cit.

17. Ibid., p. 32.

18. Ibid., pp. 35-36.

19. Ibid., p. 41.

20. Ibid., p. 45.

21. Walter W. Cook, et al., Minnesota Teacher Attitude Inventory (New York: The Psychological Corporation, not dated), p. 3.

22. Ibid., pp. 10-14.

23. Rokeach, op. cit., p. 71.

24. Ibid., p. 57.

25. Ibid., p. 96.

26. Veralee Hardin in a personal interview at the University of Missouri-Columbia on February 21, 1971.

27. Center for Educational Improvement, Introduction to Verbal Behavior, Handbook for Inservice Teachers: Unit I (Columbia: University of Missouri, College of Education, 1969).

28. Jon S. Paden, "Testing the VIB Instrument" (Columbia: Center for Educational Improvement, College of Education, University of Missouri-Columbia, not dated), mimeographed.

29. Center for Educational Improvement, op. cit., p. 34.

Chapter IV

ANALYSIS OF THE DATA

If, in fact, change occurred in the instructional behavior and/or attitudes of the Title I, ESEA teachers who participated in the Instructional Behavior and Skills Development Inservice Program, that change, as well as any change in their students' verbal behavior, would be substantiated by the collected data. In this investigation, teacher behavior and attitude change were measured by administering the following instruments.

1. Minnesota Teacher Attitude Inventory
2. Rokeach's Dogmatism Scale
3. Values Concerning Disadvantaged Pupils Questionnaire
4. An Inventory of Teacher Knowledge of Reading
5. Organizational Climate Description Questionnaire
6. Verbal Interactive Behavior analysis system

The behaviors and attitudes that each instrument purported to measure were the critical variables utilized in testing the stated hypotheses. In this chapter, the data obtained for the experimental and control groups for each of these variables are presented.

Teacher Attitude

General teacher attitude was measured for both the experimental and control groups of the participating teachers by administering the Minnesota Teacher Attitude Inventory (MTAI). (See Appendix D for a copy of the MTAI.) The data obtained from the MTAI for teachers in both groups are presented in Table 1.

To ascertain whether the attitudes of the two groups were homogeneous, it was necessary to determine the homogeneity of variances for the two groups. John Roscoe[1] stated that if no significant variation existed among the variances, they derived from the same population or from populations with equal variances. The test used for ascertaining the significance of such variance was the "F" test of homogeneity. Table 2 contains the results of this testing.

Testing the null hypothesis that no differences existed between the mean scores on the MTAI for the experimental and control group was accomplished by using the "t" test for two independent samples. An underlying assumption to the use of the "t" test is that the variances of the group means from the population means are equal. The variation was found to be nonsignificant for teacher attitudes, thus establishing that the two sets of scores derived from the same population (see Table 2). The "t" test of unequal numbers was deemed appropriate for analyzing the MTAI data pertinent to this problem.

Table 1

Individual Teacher Attitude Scores Reported by Experimental and Control Groups as Measured by the MTAI

Teacher	Experimental Attitude Score	Control Attitude Score
1	28	67
2	73	36
3	97	5
4	55	7
5	8	51
6	92	2
7	50	86
8	19	51
9	71	22
10	32	50
11	0	27
12	55	13
13	90	78
14	68	-19
15	9	55
16	73	70
17	64	28
18	57	41
19	78	64
20	76	-6
21	65	59
22	-11	6
23	58	30
24	53	
25	58	

Table 2

Homogeneity of Variance of the MTAI Scores for Teachers in the Experimental and Control Groups

Group	Number of Subjects	Mean	Standard Deviation	"F" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	52.720	29.413		24	
				1.04		2.03
Control Teachers	23	35.783	28.824		22	

Table 3

Comparison of Experimental and Control Teachers' Mean Attitude Scores as Measured by the MTAI

Group	Number of Subjects	Mean	Standard Deviation	"F" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	52.720	29.413			
				2.01*	47	1.68
Control Teachers	23	35.783	28.824			

*Significant beyond the .05 level of confidence.

As reported in Tables 2 and 3, the mean MTAI scores for the experimental and control groups were 52.720 and 35.783, respectively. The "F" value (Table 2) of 1.04 was less than the indicated value of 2.03 required to be significant at the .05 level, therefore, the independent "t" test was applied to the data. The test of mean scores for experimental and control groups (Table 3) yielded a "t" value of 2.01. This value exceeded the "t" value of 1.68 required to establish a significant difference between the means at the .05 level of confidence. These findings verify that the two groups, when compared on general teacher attitudes, came from the same populations or populations with equal means. There were significant mean differences between the two groups based on general teacher attitudes as measured by the MTAI. Thus, the null hypothesis was rejected.

Teacher Dogmatism

Dogmatism data were collected by administration of Rokeach's Dogmatism Scale, Form E, to the participating teachers of both groups. A copy of the scale is included in Appendix E. Form E contains 40 items whose responses are ranged on a continuum from strong agreement to strong disagreement. The response of the experimental and control group teachers' scores on the Dogmatism Scale are included in Table 4. The "F" test for

Table 4

Individual Teacher Dogmatism Scores Reported by Experimental and Control Groups as Measured by Rokeach's Dogmatism Scale

Teacher	Experimental Dogmatism Score	Control Dogmatism Score
1	170	135
2	104	120
3	145	179
4	118	176
5	168	123
6	139	187
7	100	90
8	169	138
9	192	144
10	138	129
11	150	139
12	118	138
13	115	185
14	146	160
15	190	124
16	108	89
17	99	172
18	168	146
19	84	90
20	129	134
21	151	125
22	213	171
23	160	151
24	147	
25	157	

homogeneity of variance was used on the data, as reported in Table 5, which yielded an "F" value of 1.24 and was found to be not significant at the .05 level of confidence.

Table 5

Homogeneity of Variance of Rokeach's Dogmatism Scale for Teachers in the Experimental and Control Groups

Group	Number of Subjects	Mean	Standard Deviation	"F" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	143.120	32.323		24	
				1.24		2.03
Control Teachers	23	141.087	29.033			

Testing the null hypothesis that no differences existed between the mean dogmatism scores for the experimental and control groups was accomplished by administering the "t" test for two independent samples.

As reported in Tables 5 and 6, the mean Dogmatism Scale scores for the experimental and control groups were 143.120 and 141.087, respectively. The "t" test of means (Table 6) yielded a "t" value of .23, which was less than the value 1.68 required to establish a significance of means at

the .05 level of confidence. There was no observed significant difference in teacher dogmatism between the two groups

Table 6

Comparison of Experimental and Control Teachers' Mean Dogmatism Scores as Measured by Rokeach's Dogmatism Scale

Group	Number of Subjects	Mean	Standard Deviation	"t" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	143.120	32.323	.23	47	1.68
Control Teachers	23	141.087	29.033			

Values Concerning Disadvantaged Pupils

To ascertain whether a difference existed in teachers' values concerning disadvantaged students, the Values Concerning Disadvantaged Pupils Questionnaire (VDPQ) was administered to the participating teachers (see Appendix F for a copy of the VDPQ). The scores that each teacher in the experimental and control groups obtained on the VDPQ are contained in Table 7. The VDPQ scores were tested for homogeneity of variance with the following results.

Table 7

Teacher Values Concerning Disadvantaged Pupils Scores Reported by Experimental and Control Groups As Measured by the VDPQ*

Experimental VDPQ Scores	Control VDPQ Scores
197	183
188	173
185	165
184	165
178	163
177	157
176	153
174	148
172	146
171	146
170	145
169	145
166	142
165	142
165	138
165	137
165	134
157	134
156	133
155	133
148	130
142	124
137	122
135	
126	

*The computer analysis of this data did not provide individual teacher scores and were, therefore, not identifiable.

The "F" value (Table 8) of 1.22 was less than the indicated value of 2.03 required to be significant at the .05 level of confidence. It was then necessary to test the null hypothesis that no differences existed between the mean scores on the VDPQ for the experimental and control groups, which was accomplished by employing the "t" test for two independent samples.

As illustrated in Tables 8 and 9, the mean VDPQ scores for the experimental and control groups were 164.920 and 146.000, respectively. The "t" test of means (Table 9) yielded a "t" value of 3.964, which exceeded the indicated value of 1.68 required to be significant at the .05 level of confidence. The experimental group teachers' values concerning disadvantaged pupils were found to be higher than the control group. Thus, the null hypothesis was rejected. There was a significant difference between the two groups based on their values concerning disadvantaged students.

Teacher Knowledge of Reading

An Inventory of Teacher Knowledge of Reading (ITKR), developed by Hardin and Artley, is included in Appendix G. Each teacher in both groups responded to the one-hundred item questionnaire. Table 10 contains the obtained scores for each teacher in the experimental and control groups on the ITKR.

Table 8

Homogeneity of Variance of VDPQ Scores for Teachers in the Experimental and Control Groups

Group	Number of Subjects	Mean	Standard Deviation	"F" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	164.920	17.349		24	
				1.22		2.03
Control Teachers	23	146.000	15.673		22	

Table 9

Comparison of Experimental and Control Teachers' Mean Values Concerning Disadvantaged Pupils Scores As Measured by the VDPQ

Group	Number of Subjects	Mean	Standard Deviation	"t" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	25	164.920	17.349			
				3.964*	47	1.68
Control Teachers	23	146.000	15.673			

*Significant beyond the .05 level of confidence.

Table 10

Individual Teacher Knowledge of Reading Scores Reported by Experimental and Control Groups as Measured by the ITKR

Teacher	Experimental ITKR Score	Control ITKR Score
1	75	77
2	92	87
3	81	70
4	75	71
5	67	64
6	72	70
7	76	83
8	75	68
9	75	77
10	66	76
11	76	80
12	78	73
13	81	71
14	76	69
15	72	74
16	79	72
17	74	69
18	80	66
19	81	72
20	*	75
21	68	71
22	71	56
23	74	75
24	68	
25	61	

*The data for this teacher on the ITKR was not usable due to the teacher incorrectly marking the answer sheet; therefore, the N for the experimental group on the ITKR was 24.

The homogeneity of variance was determined by employing the "F" test which yielded the data contained in Table 11.

The null hypothesis that no differences existed between the mean scores on the ITKR for the experimental and control groups was tested by applying the "t" test for two independent samples to the data. The results of this testing are contained in Table 12.

As indicated in Tables 11 and 12, the mean ITKR scores for the experimental and control groups were 74.708 and 72.435, respectively. The "F" value (Table 11) of 1.01 was less than the indicated value required to be significant at the .05 level of confidence. The "t" test of means (Table 12) yielded a "t" value of 1.22. This value was less than the "t" value of 1.68 required to establish a significant difference between the means at the .05 level of confidence. Thus, the null hypothesis was not rejected.

Organizational Climate

Data were collected from the participating teachers relative to their individual perceptions of the organizational climate of their respective school by means of the Organizational Climate Description Questionnaire (OCDQ). (See Appendix H for a copy of the OCDQ). Dr. Andrew W. Halpin and Dr. Andrew Hayes of the

Table 11

Homogeneity of Variance of ITKR Scores for Teachers in the Experimental and Control Groups

Group	Number of Subjects	Mean	Standard Deviation	"F" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	24	74.708	6.335	1.01	23	2.04
Control Teachers	23	72.435	6.381		22	

Table 12

Comparison of Experimental and Control Teachers' Mean Knowledge of Reading Scores as Measured by the ITKR

Group	Number of Subjects	Mean	Standard Deviation	"t" Value	Degrees of Freedom	.05 Limit
Experimental Teachers	24	74.708	6.335	1.22	46	1.68
Control Teachers	23	72.435	6.381			

College of Education, University of Georgia, processed the OCDQ data in the computer center of the University of Georgia. Copies of the computer print-outs provided data relative to the investigation of the teachers' perception of organizational climate. The mean climate profile scores for the experimental and control groups are included in Table 13.

Table 13

Mean Climate Profile Scores of the Teachers in the Experimental and Control Groups on the OCDQ

Group	N	Subtests*							
		1 Dis	2 Hin	3 Esp	4 Int	5 Alo	6 Prd	7 Thr	8 Con
Experimental Teachers	21	44	49	52	54	49	47	51	48
Control Teachers	23	45	46	49	54	48	43	51	54

*Disengagement, Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, Thrust, Consideration

Visual analysis of these data indicated no difference in the perceived climates of the teachers in the two groups. Since no major differences were readily observable, these data were not subjected to statistical analysis.

Teacher and Student Verbal Classroom Behavior

Twenty-three of the twenty-five participating teachers in the experimental group provided usable audio-taped recordings of their classroom instruction at the close of the training program. The two remaining teachers in the experimental group provided tapes that were garbled, which could not be analyzed. All twenty-three teachers in the control group participating in this investigation provided audio-taped recordings of their classroom instruction.

The forty-six tapes of classroom instruction were codified by a staff of experienced and trained coders using the Verbal Interactive Behavior analysis system.

A computer program designed by staff members of the Center for Educational Improvement synthesized the codified data and provided a print-out in the form of an 11 by 11 classification matrix. This process was completed for each of the forty-six tapes of classroom instruction.

The data codified in the matrix print-out contained the frequency of occurrence for each of the eleven behavioral classifications, provided the cell percentage as a ratio of interaction classification frequency, and the five interactive indices. These indices were: (1) the Degree of Student Participation, (2) the Frequency of Speaker Change, (3) the Frequency of Encouragement, (4) the Effectiveness of Teacher Talk to Stimulate Student Talk, and

(5) the Degree to Which the Teacher Dominated the Discussion.

After the data for each individual teacher had been analyzed, a grand matrix was constructed which contained all of the information mentioned above for each of the two groups (i.e., experimental and control). The results of the data contained in these two matrices are reported in Table 14.

The data, as reported in Table 14, illustrate that there was a difference of 1393 total tallies between the experimental and control groups. To a great extent, this difference was due to the fact that each teacher was requested to submit an approximately twenty-minute segment of classroom verbal behavior. No attempt was made by the investigator to select a particular sample of this verbal behavior and, therefore, the total segment submitted by each teacher was analyzed.

The difference of 1393 total tallies constitutes a difference of approximately fifteen per cent of the total verbal behavior between the two groups. This raw data, when used for analysis, would cause some inherent differences in the total tally count in every category for each teacher. These differences would also effect the five indices calculated for

Table 14

Interactive Behavior Classification Totals Reported in Frequency and Percentages by Experimental and Control Groups

Column	Experimental VIB		Control VIB	
	Total	%	Total	%
1. Student Initiation	576	7.25	536	5.74
2. Student Question	71	.90	48	.52
3. Student Response	2705	34.05	3455	37.00
4. Positive Reinforcement	878	11.05	966	10.35
5. Using Student Ideas	167	2.11	251	2.69
6. Teacher Question	1695	21.34	2234	23.92
7. Teacher Lecture	968	12.19	952	10.20
8. Directing Students	178	2.24	285	3.06
9. Negative Reinforcement	69	.87	43	.46
10. Silence	362	4.56	521	5.58
11. Confusion	278	3.50	49	.53
TOTAL	7947		9340	

each teacher. Therefore, all statistical analysis based on these data would be biased to the extent that differences might be reported, which in fact may not have existed.

In order to eliminate the possibility of this type of error, all of the cell frequencies for every teacher in the control group were corrected by a constant of .8508. This constant was obtained by dividing the total frequencies in the control group by the total frequencies in the experimental group. All data analysis used in reference to the Verbal Interactive Behavior instrument in this study were employed subsequent to the correction of the data by this factor.

In order to test the five hypotheses associated with the VIB indices, it was necessary to ascertain if a change in the verbal classroom interactive behavior occurred between the experimental and control groups' post-treatment scores for the five VIB indices. These five indices were:

1. The Degree of Student Participation
2. The Frequency of Speaker Change
3. The Frequency of Encouragement
4. The Degree to Which the Teacher Dominated the Discussion
5. The Effectiveness of Teacher Talk to Stimulate Student Talk

The data obtained for each teacher in the experimental and control groups on the five indices are reported in Tables 15 and 16.

A summary of the data for each of the indices of verbal behavior for each teacher in the experimental group is presented in Table 15. Inspection of these data reveals that Index 1, "The Student Involvement Index," expressed as a ratio of total student talk to total talk was 0.47; Index 2, "The Speaker Change Index," expressed as a ratio of either teacher yielding to student or student yielding to teacher was 0.38; Index 3, "The Encouragement Index," expressed as a ratio of total teacher talk which encouraged student participation was 0.65; Index 4, "The Domination Index," expressed as a ratio of total teacher talk to the total talk was 0.35; and Index 5, "The Effectiveness Index," expressed as a ratio of the number of teacher talk tallies that were followed by a student response to the total number of teacher talk observations was 0.20.

The same process was also completed for each of the teachers in the control group. The data for the control teachers are reported in Table 16. The data indicate that Index 1, "The Student Involvement Index," was 0.47; Index 2, "The Speaker Change Index," was 0.37; Index 3, "The Encouragement Index," was 0.70; Index 4, "The Domination Index," was 0.53; and Index 5, "The Effectiveness Index," was 0.19.

Table 15

Summary of Verbal Behavior Indices for Each Teacher in the Experimental Group

Teacher	VIB Indices				
	1	2	3	4	5
1	.60	.40	.88	.41	.19
2	.72	.28	.83	.28	.14
3	.66	.32	.82	.34	.16
4	.66	.20	.59	.34	.10
5	.28	.47	.81	.72	.24
6	.49	.35	.88	.51	.18
7	.50	.34	.70	.50	.17
8	.29	.61	.87	.71	.31
9	.31	.38	.79	.69	.19
10	.33	.34	.69	.43	.17
11	.44	.39	.56	.56	.26
12	.33	.37	.62	.67	.20
13	.39	.30	.39	.61	.15
14	.36	.52	.43	.64	.26
15	.44	.50	.79	.56	.25
16	.53	.49	.91	.48	.25
17	.72	.07	.33	.28	.03
18	.03	.81	.82	.97	.41
19	1.00	.00	.00	.00	.00
20	.46	.52	.65	.54	.26
21	.32	.32	.35	.68	.15
22	.58	.27	.54	.66	.13
23	.38	.39	.69	.62	.20
Mean Indices Score for Group	.47	.38	.65	.53	.20

Table 16

Summary of Verbal Behavior Indices for Each Teacher in the Control Group

Teacher	VIB Indices				
	1	2	3	4	5
1	.56	.28	.90	.44	.17
2	.49	.20	.59	.51	.09
3	.55	.34	.82	.45	.17
4	.69	.26	.72	.31	.13
5	.55	.54	.84	.45	.28
6	.37	.48	.70	.63	.24
7	.27	.41	.62	.73	.21
8	1.00	.00	.00	.00	.00
9	.41	.30	.79	.59	.15
10	.21	.45	.61	.79	.26
11	.63	.27	.69	.37	.13
12	.76	.16	.58	.24	.08
13	.43	.31	.67	.58	.16
14	.45	.46	.86	.55	.23
15	.62	.24	.53	.38	.12
16	.23	.89	.86	.78	.44
17	.48	.23	.52	.52	.11
18	.40	.39	.75	.60	.20
19	.43	.35	.78	.57	.17
20	.39	.61	.99	.61	.30
21	.34	.34	.67	.66	.17
22	.26	.49	.65	.75	.24
23	.31	.53	.84	.69	.27
Mean Indices Score for Group	.47	.37	.70	.53	.19

Statistical treatment of the data contained in Tables 15 and 16 was accomplished to test the five hypotheses that were established which dealt with the VIB indices. Since there were two independent groups, the nonparametric Mann-Whitney U test[2] appeared most useful for this analysis. The null hypothesis assumed that the two groups had the same distribution. If a significant difference existed, it constituted evidence for the rejection of the null hypothesis.

Siegel reported that the Mann-Whitney U test was the most powerful alternative to the parametric "t" test, and one of the most powerful of the nonparametric tests.[3] Moreover, the power efficiency of the Mann-Whitney U test approaches 3/ π =99.5 per cent as N increases.[4] The results of this testing on the experimental and control groups' data are contained in Table 17.

None of the observed behaviors as reported in Table 17 were statistically significant. Thus, the null hypotheses were not rejected.

The Verbal Interactive Behavior analysis system has three of its eleven categories which deal exclusively with student talk. These three categories are (1) "Student Initiation," (2) "Student Question," and (3) "Student Response." Since verbal behavior was one of the variables upon which this study was based, it was imperative that the two groups also be equated upon this

Table 17

Significance of Difference of Teachers in the Experimental and Control Groups on the Five VIB Indices*

Observed Behavior	Index Teachers Experimental	Index Teachers Control	Mann-Whitney U-Value	Z Value	Significant at the .05 Level
1. Student Participation	0.47	0.47	260.50	0.09	not significant
2. Frequency of Speaker Change	0.38	0.37	247.00	0.38	not significant
3. Encouragement of Students	0.65	0.70	242.50	0.48	not significant
4. Teacher Domination	0.53	0.53	259.50	0.11	not significant
5. Effect of Teacher Talk	0.20	0.19	252.00	0.27	not significant

* The N for both groups was 23.

measure. Tables 18 and 19 contain the data for each group on the observed student behaviors.

Statistical treatment of the data contained in Tables 18 and 19 was accomplished to test the three null hypotheses that pertained to Student Initiation, Student Questions, and Student Response that were established to assess the observed behavior of the students of the control and experimental teachers. The tallies of each of the observed behaviors were tested for significant differences using the Mann-Whitney U test. The results of this testing are contained in Table 20.

One of the observed behaviors, Student Initiation, as reported in Table 20 was found to be statistically significant. Thus, the null hypothesis was rejected. The other two behaviors, Student Questions and Student Response, were not statistically significant.

Summary of Significant Findings

The purpose of this chapter was to present the data collected for this study. Thirteen hypotheses were analyzed utilizing both the "t" test for independent samples and the Mann-Whitney U test with the .05 level of confidence set as a standard for establishing significant difference. The data indicated that three of the thirteen hypotheses were rejected.

Table 18

Student Verbal Behavior of Teachers in the Experimental Group*

Teacher	Student Initiation	Student Questions	Student Response
1	.208	.013	.375
2	.012	.004	.706
3	.009	.009	.646
4	.114	.000	.546
5	.042	.000	.239
6	.110	.027	.354
7	.171	.000	.333
8	.013	.013	.262
9	.006	.000	.304
10	.137	.004	.200
11	.014	.000	.426
12	.000	.010	.319
13	.057	.000	.331
14	.175	.013	.168
15	.180	.003	.259
16	.073	.002	.450
17	.035	.000	.683
18	.000	.000	.029
19	.064	.000	.937
20	.114	.031	.318
21	.023	.000	.301
22	.099	.083	.402
23	.035	.006	.342

*Ratio of student talk in this category to total talk recorded.

Table 19

Student Verbal Behavior of Teachers in the Control Group*

Teacher	Student Initiation	Student Questions	Student Response
1	.083	.013	.465
2	.055	.000	.437
3	.192	.043	.314
4	.151	.005	.536
5	.020	.007	.526
6	.004	.000	.370
7	.000	.000	.272
8	.302	.024	.675
9	.003	.000	.406
10	.016	.006	.186
11	.046	.000	.584
12	.019	.007	.732
13	.183	.000	.242
14	.000	.000	.447
15	.003	.003	.613
16	.000	.000	.225
17	.020	.005	.458
18	.002	.000	.396
19	.142	.002	.287
20	.010	.003	.377
21	.770	.000	.261
22	.000	.000	.256
23	.004	.000	.307

*Ratio of student talk in this category to total talk recorded.

Table 20

Significance of Difference Between Experimental and Control Groups in the Three Student Talk Categories*

Observed Behavior	Mann-Whitney U Value	Z Value	Significant at .05 Level
1. Student Initiation	190.00	1.64	significant
2. Student Questions	226.50	0.89	not significant
3. Student Response	237.00	0.60	not significant

*The N for both groups is 23.

The first hypothesis that was rejected concerned general teacher attitudes as measured by the Minnesota Teacher Attitude Inventory. The data indicate that the mean teacher attitude of the experimental group teachers was significantly higher compared to the control group teacher attitudes.

The second hypothesis that was rejected dealt with the values that teachers held concerning disadvantaged students. These values were assessed by the Values Concerning Disadvantaged Pupils Questionnaire. The data indicate that mean teacher values of the experimental group were significantly higher than the control group teacher values.

The third hypothesis that was rejected pertained to the verbal behavior that was classified as Student Initiation in the Verbal Interactive Behavior analysis system. The data substantiate the fact that students of the experimental group teachers demonstrated significantly more student initiation when contrasted to the students of the control group teachers.

Notes to Chapter IV

1. John T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences (New York: Holt, Rinehart and Winston, Inc., 1969), pp. 227-229.

2. Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1965), pp. 116-27.

3. Ibid., p. 116.

4. Ibid., p. 126.

Chapter V

FINDINGS AND CONCLUSIONS

Isolation and identification of instructional behaviors and attitudes of teachers (classified as Title I teachers of the Elementary and Secondary Education Act of 1965, amended) and their students which demonstrated significant modification when compared to a control group upon completion of a thirty-six week teacher inservice training program was the central focus of this study. To achieve this end, data pertinent to several types of teacher behavior and attitudes, as well as student verbal behavior, were systematically collected, analyzed, and reported in this study.

Forty-eight elementary school teachers (grades K through 6) from the Springfield, Missouri Public Schools participated in this study. Twenty-three teachers formed the experimental group. Teachers in the control group were from the same elementary schools as the teachers in the experimental group but did not participate in the inservice treatment of the IBS program. Teachers in the experimental group experienced treatment comprised of a thirty-six week Instructional Behavior and Skills

Development Inservice Program. The teachers in the control group experienced workshops and faculty meetings which were open to all teachers in the school district.

Data collection for this research was accomplished by the administration of the following instruments.

1. Minnesota Teacher Attitude Inventory
2. Rokeach's Dogmatism Scale
3. Values Concerning Disadvantaged Pupils Questionnaire
4. An Inventory of Teacher Knowledge of Reading
5. Organizational Climate Description Questionnaire
6. Verbal Interactive Behavior analysis system

Statistical tests applied to the assembled data were the "F" test for homogeneity of variance and the "t" test of significance of mean difference. The .05 level of confidence was selected to use in the tests of significance of differences. Two-tailed tests were employed in testing the "F" tests associated with each hypothesis. A one-tailed test was employed for the "t" tests of significance of mean difference because it was hypothesized that a directional difference would exist between the two groups.

A twenty-minute audio tape recording of classroom behavior was obtained from forty-six of the forty-eight participating teachers in the two groups. These audio recordings were then

coded utilizing the Verbal Interactive Behavior analysis system. The codified data were analyzed through the use of the nonparametric Mann-Whitney U test for two independent groups. The .05 level of confidence was selected to use in tests of significance of differences. A one-tailed test of significance was employed with the resulting data.

Findings

Thirteen research hypotheses were generated for this investigation. The findings associated with each of the thirteen tested hypotheses follows.

Ho_1: Submission of hypothesis 1, teacher attitude, to the "t" test for two independent samples yielded a "t" value of 2.01 which was significant at the .05 level of confidence and, therefore, the null hypothesis was rejected. This result indicates that the mean teacher attitudes of the experimental group teachers were significantly higher when compared to the control group teacher attitudes.

Ho_2: Submission of hypothesis 2, teacher dogmatism, to the "t" test for two independent samples yielded a "t" value of .23 which was not

significant at the .05 level of confidence and, therefore, did not permit the rejection of the null hypothesis.

Ho_3: Submission of hypothesis 3, teacher values, to the "t" test for two independent samples yielded a "t" value of 3.964 which was significant at the .05 level of confidence and, therefore, the null hypothesis was rejected. The Values Concerning Disadvantaged Pupils Questionnaire of the experimental group teachers was significantly higher than control group teacher values.

Ho_4: Submission of hypothesis 4, reading knowledge, to the "t" test for two independent samples yielded a "t" value of 1.22 which was not significant at the .05 level of confidence and, therefore, did not permit the rejection of the null hypothesis.

Ho_5: Submission of hypothesis 5, organizational climate, to visual analysis showed there was no significant difference in the teachers' perception of the organizational climate of their schools. The null hypothesis was not rejected.

Ho_6: Submission of hypothesis 6, student involvement index, to the Mann-Whitney U test yielded a z value of 0.09 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_7: Submission of hypothesis 7, the speaker change index, to the Mann-Whitney U test yielded a z value of 0.38 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_8: Submission of hypothesis 8, the encouragement index, to the Mann-Whitney U test yielded a z value of 0.48 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_9: Submission of hypothesis 9, the domination index, to the Mann-Whitney U test yielded a z value of 0.11 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_{10}: Submission of hypothesis 10, the encouragement index, to the Mann-Whitney U test yielded a z value of 0.27 which was not significant at the

.05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_{11}: Submission of hypothesis 11, student initiation, to the Mann-Whitney U test yielded a z value of 1.64 which was significant at the .05 level of confidence. The null hypothesis was rejected. The data substantiate the fact that students of the experimental group teachers demonstrated significantly more student initiation when contrasted to the students of the control group teachers.

Ho_{12}: Submission of hypothesis 12, student questions, to the Mann-Whitney U test yielded a z value of 0.89 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Ho_{13}: Submission of hypothesis 13, student response, to the Mann-Whitney U test yielded a z value of 0.60 which was not significant at the .05 level of confidence and, therefore, the null hypothesis was not rejected.

Summary of the Findings

A total of thirteen hypotheses were tested by the findings previously stated. Of these hypotheses, the findings dictate that three of the thirteen be rejected. The first null hypothesis was rejected on the basis of the fact that the analysis of the data yielded a "t" value of 2.01 which was significant at the .05 level of confidence. The data indicated that on the basis of general teacher attitudes the teachers in the experimental group was significantly higher when compared to the control teachers.

It was evidenced by the second significant finding (hypothesis 3) that the teachers in the experimental group demonstrated that their values concerning disadvantaged pupils was significantly higher than the teachers in the control group. This finding was supported by the analysis of the Values Concerning Disadvantaged Pupils Questionnaire data which yielded a "t" value of 3.964 which was significant at the .05 level of confidence.

The third significant finding (hypothesis 11) was evidenced when the Mann-Whitney U test was applied to the data pertaining to student initiation and resulted in a z value of 1.64 which was significant at the .05 level of confidence. The data substantiated the fact that students of the experimental group teachers demonstrated significantly more student initiation when compared to the students of the control group teachers.

The ten hypotheses that were rejected revealed that some difference existed between the experimental and control groups, but these differences were not statistically significant at the .05 level of confidence selected for this study.

Conclusions

Within the stated purposes, limitations, and findings of this study, the following conclusions seem warranted.

1. At the completion of the thirty-six week intensive IBS Inservice Training Program the elementary school teachers demonstrated significant behavioral modification in the area of general teacher attitudes. Specifically, teachers in the experimental group scored higher on the Minnesota Teacher Attitude Inventory than teachers in the control group.

2. At the completion of the thirty-six week intensive IBS Inservice Training Program the elementary school teachers demonstrated significant behavioral modification in their values concerning disadvantaged students. Particularly, this was demonstrated by higher scores for the experimental group on the Values Concerning Disadvantaged Pupils Questionnaire than teachers in the control group.

3. At the completion of the thirty-six week intensive IBS Inservice Training Program the elementary school teachers

demonstrated significant instructional behavioral modification in the area of classroom verbal behavior. Specifically, students of the experimental group teachers utilized self-initiating behavior significantly more frequently than did the students of the control group. Since the teacher, as supported by research findings of Amidon and others, control the total verbal behavior of the classroom by a factor of .70, it seems reasonable to assume that the instructional behavior of the experimental group teachers were modified appropriately to stimulate the significant increase in their students' self-initiating behavior.

Implications

The following implications would seem worth noting from the results of this investigation.

1. The IBS Inservice Training Program can be a viable tool in changing selected behaviors of its participants.

2. The value of the IBS Training Program for teachers may come to realization in the behaviors and achievement of their students. In a recent study on the effects of the IBS program on secondary school teachers and their students, Hoosein found that the utilization of the IBS program to modify student verbal behavior can result in an increase in student questions and student inquiry.[1]

3. It is quite possible that the indices of verbal behavior might be modified by using the IBS program on other teachers. Hoosein, in his study of secondary teachers, found that the encouragement index of verbal instructional behavior can be modified.[2]

Recommendations for Further Research

During the course of this investigation, additional questions were identified which seem to warrant research and study.

1. Can replications of the IBS treatment demonstrate consistency in modifying teacher attitudes and behavior?

2. Additional studies should examine the ability of the IBS program to modify teacher attitudes and behaviors at differing organizational levels.

3. What is the relationship between "Student Initiation" and "Student Achievement?"

4. Do teachers having experienced the IBS Inservice Training Program demonstrate a varying degree of behavior modification in future years?

5. Do teachers having experienced the IBS Inservice Training Program differ in their behavior modification from teachers who experience only VIB training?

6. Do elementary teachers of students other than those classified as disadvantaged differ in their attitudes and behavior modification from those teachers who experienced this program?

Notes to Chapter V

1. Abdool N. Hoosein, "The Effect of Teacher Behavior Modification Training Upon the Level of Student Inquiry" (unpublished Doctor's dissertation, University of Missouri-Columbia, 1972), p. 78.

2. Ibid.

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APPENDIX A

COMPONENTS OF THE INSTRUCTIONAL BEHAVIOR AND SKILLS DEVELOPMENT EXPERIENTIALLY BASED INSERVICE COURSE*

Instructional-Organizational Skills	No. of Workshops	Hours			Weeks
		Workshops	Classroom Activity	Independent Study	
1. Orientation	.5	1	-	4	.5
2. Educational Technology					
a. Behavioral Objectives	1.0	2	-	1	.1
b. Educational Media	1.0	2	5	8	1.0
c. Development of Instructional Pacquettes	2.0	4	10	8	1.5
3. Self-Direction and Inquiry				76	9.0
a. Independence	.5	1	-	3	.3
b. Motivation	.5	1	-	4	.5
c. Inquiry	1.0	2	-	4	.5
4. Differentiated Teaching Strategies for the Disadvantaged	2.0	4	10	8	1.0
5. Microteaching	1.0	2	17	6	2.0
6. Measurement and Evaluation	2.0	4	5	1	2.0
7. Summary	1.0	2	-	8	2.7
8. Program Evaluation	2.0	4	-	8	1.3
				-	.6

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Instructional-Behavioral Skills	No. of Workshops	Hours			Weeks
		Workshops	Classroom Activity	Independent Study	
(SCIB) Systems for Classifying Verbal Interactive Behaviors					
1. Verbal Interactive Behavior (VIB)					
a. Analysis of reading disabilities their relation to teacher behavior	2.0	4	4	12	2.0
b. Application (Modifying Teacher Behavior through application of new teaching skills and techniques)	10.0	20	20	60	10.0
TOTALS	26.5	53	71	211	32.0

*Constitutes the components of the program but not necessarily the sequence in which they will be ordered.

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APPENDIX B

TECHNIQUE FOR GENERALIZING VIB MATRIX RESULTS (REVISED)

I. The Matrix

The VIB Matrix is formed by eleven columns and eleven rows which form one hundred twenty-one cells. Each cell contains three bits of information:

(1) the cell frequency
(2) the per cent of total observations entered in the cell
(3) the cell difference from "Key" or other standard.

II. Usable, Descriptive Expressions

Although there is a great deal of information held within the cell and column figures, it is difficult to draw general conclusions while the data are in this form. It is desirable to have statements or expressions which quantify the matrix in more general, easily interpreted terms. The generalizing statements need to be sufficient in number to describe each of the classroom qualities in which we have expressed a high degree of interest and that we consider to be likely dependent variables.

III. The Five Indices

To express the various qualities of classroom verbal interactive behavior in a quantitative way, the tally totals of selected matrix areas can be combined and compared with the total number of observations of columns one through nine so the value of the ratio will reflect:

(1) the degree of student participation
(2) the frequency of speaker change
(3) the frequency of encouragement offered by the teacher
(4) the degree to which the teacher dominated the discussion
(5) the effectiveness of teacher talk to stimulate student participation.

Index One: The Degree of Student Participation is calculated by summing columns one, two, and three and dividing by the sum total of columns one through nine.

Index Two: The Frequency of Speaker Change is calculated by summing those areas which involve either the teacher giving/granting the floor to student or a student yielding to the teacher.

The "B" and "C" areas describe this condition; their sum is divided by the total number of matrix tallies in columns one through nine to calculate Index Two.

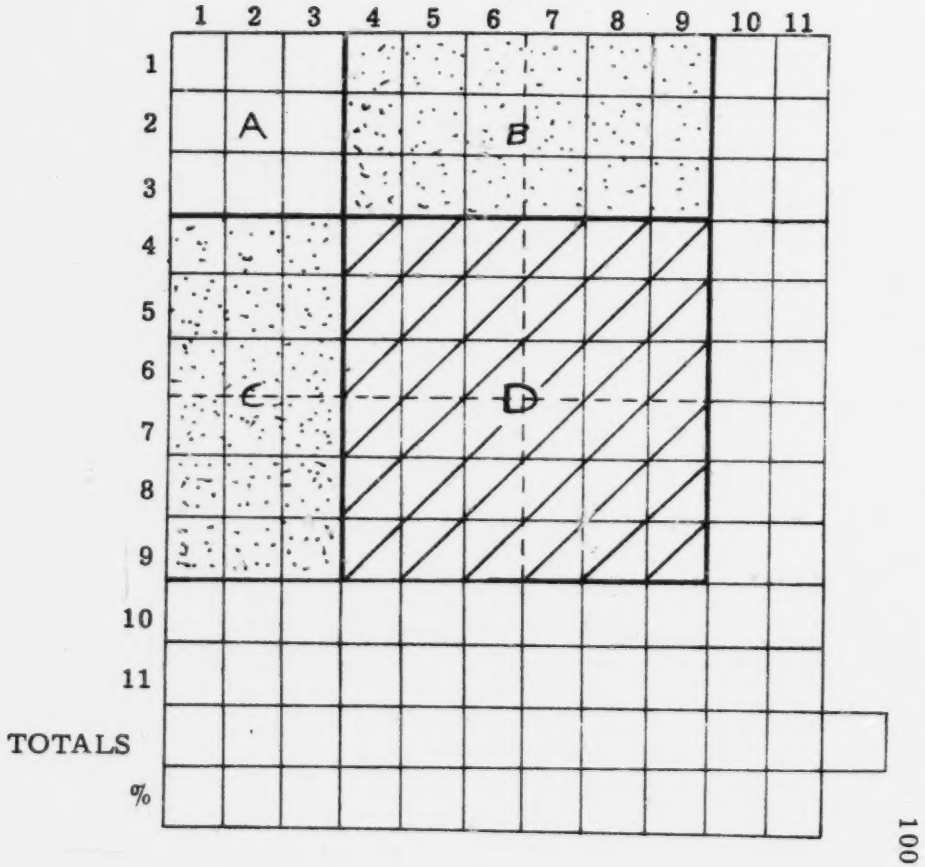
Index Three: The Frequency of Encouragement compares the sums of column totals four, five, and six to the sum of columns four through nine. This ratio forms the fraction of the teacher talk which encourages student participation.

Index Four: The Degree to Which the Teacher Dominated the Discussion is the ratio of the total teacher talk to the total number of observations; columns four through nine divided by columns one through nine.

Index Five: The Effectiveness of Teacher Talk to Stimulate Student Talk is the ratio of the tallies on area "C" to the sum of columns four through nine. This is the ratio of the number of teacher-talk tallies that were followed by a student response to the total number of teacher-talk observations.

VIB ANALYSIS MATRIX

1. STUDENT INITIATION
2. STUDENT QUESTION
3. STUDENT RESPONSE
4. POSITIVE REINFORCEMENT
5. USING STUDENT IDEAS
6. TEACHER QUESTION
7. TEACHER LECTURE
8. DIRECTING STUDENTS
9. NEGATIVE REINFORCEMENT
10. SILENCE
11. CONFUSION



APPENDIX C

SUMMARIES OF VIB CATEGORIES FOR INTERACTION ANALYSIS

1. Student Initiation: Student initiates a statement without being called on.

2. Student Question: Student asks question without being called on.

3. Student Response: A result of category 6; student responds to teacher's questions.

4. Positive Reinforcement: Teacher gives positive feedback to student talk; praises what student has said, encourages him to continue.

5. Using Student Ideas: May be result of either category 1 or 2; teacher takes student idea and builds or enlarges.

6. Teacher Questions: Teacher directs student(s) to recite, respond.

7. Teacher Lecture: Teacher tells students opinions, facts, information.

8. Directing Students: Teacher gives commands or directions to students as to procedures, assignments.

9. Criticizing Students: Negative feedback to student response; hold up self or text as authority; much self-reference.

10. Silence: Periods of silence while students think, prepare materials, do individual or small group work.

11. Confusion: Observer cannot understand verbal behavior, or verbal behavior of class NOT constructive due to rowdy, overt behavior.

DESCRIPTION OF VIB CATEGORIES

It is believed that quality teaching can be measured by the degree to which students are led to initiate their own constructive questions or comments. Concern in teaching must be geared toward student-initiated responses and what the teacher does with those responses. Students must be led to an interest level that will foster in them a desire to initiate responses or, in short, "to inquire."

The VIB system is concerned with verbal behavior as it takes place in the classroom. The eleven classification divisions of the system can be utilized effectively in describing classroom verbal interaction. Qualitatively, student talk is preferred to the classroom where the teacher does most of the verbalizing. The verbal behavior of the teacher determines to a large extent if "inquiry" is permitted to materialize. If "inquiry" is the goal, then what the teacher does to help students reach that goal is of the utmost concern.

The VIB system first classifies classroom verbal interaction into the two general categories of teacher and student talk. The teacher's verbal behavior can either encourage or discourage students from responding. The freedom of the student to make comments or ask questions is dependent upon the verbal behavior of the teacher. If the teacher is directive, lectures, or gives the

student negative reinforcement, he is not encouraging the students to initiate responses. On the other hand, if the teacher asks questions, uses student's ideas, and gives them positive reinforcement, it is assumed that students are more likely to respond in an inquiring manner.

Student talk takes place when a student initiates a comment, asks a question, or responds to a teacher's question. All three are desirable classroom behaviors, but inquiry usually takes place only when the student makes comments or questions to the teacher or other students.

A third general division of the VIB system is classroom silence. Very meaningful activity may be taking place during silence, but since it is not verbal the VIB instrument cannot measure the nature of the interaction taking place.

A fourth general division is classroom confusion. This takes place when the students are not involved in any constructive activity or the observer cannot understand the verbal behavior taking place.

All classroom verbal interaction, then, is classified into one of four major divisions: (1) teacher talk, (2) student talk, (3) silence, and (4) confusion.

Both teacher and student verbal behavior are further subdivided in order to make the interaction patterns more meaningful. The three categories of student talk are all desirable behavior, but student initiated response is the goal of "inquiry teaching." Teacher talk can be divided into verbal behavior that fosters inquiry and verbal behavior that hinders inquiry. Non-inquiry stimulating teacher talk consists of three categories: (1) teacher lecture, (2) directing students, and (3) negative reinforcement. Teacher talk categories that foster inquiry are: (1) using student ideas, (2) positive reinforcement, and (3) teacher questions. All classroom interaction can be coded into one of eleven VIB classifications. Each classification is mutually exclusive.

Student Talk

Classification 1, Student Initiation: (Inquiry): When the student raises his hand to make a statement or to continue a response to the classroom activity, the appropriate classification is number one. The statement that he makes may concern something that the teacher or some other student has said. He is not answering or proposing a question. He is making a statement or a response. The distinction between category one and categories two and three lies in the stimulus of his response. A self-initiated response is always categorized in number one. The student is expressing his own ideas

or opinions on the topic. Hopefully, the teacher will use the student's idea or give him positive reinforcement.

Classification 2, Student Question: When a student asks a question, it is coded under classification two. This is desirable student behavior and indicates that the student wants further information or wishes to "inquire" further into the topic. The teacher's handling of the student's question will determine whether "inquiry" will continue or stop.

Classification 3, Student Response: Classification 3 occurs when a student answers a teacher question. In all cases, the answer has been teacher-initiated. If the student volunteers information beyond that called for by the teacher, it is coded as number 1. Skillful questioning might lead the student to give a correct answer and then volunteer some information of his own. In this case, a 3 could be followed by a 1. Quite often, one student's answer will lead to another initiating questions of his own. If a student appears to be answering only the question posed by the teacher, then it is coded as a 3.

Teacher Talk Inquiry-Promoting Behavior

Classification 4, Positive Reinforcement: Included in this category is the teacher's acceptance of the student's feelings as

well as his praise or encouragement of what the student has said or done. In short, he is positively reinforcing the student's behavior. This is a very desirable teacher trait as it encourages the student to express his feelings and continue to inquire. The teacher may use only a single word, such as "good" or "fine," or he may make complete statements of the encouragement. Since inquiry is a self-directed process, the teacher's positive reinforcement of the student's behavior is a crucial step in the continuity of this inquiry. The teacher's acceptance of the student's comments, questions, or response will help to determine the freedom of the class "to inquire."

This class differs from classification 5 in that no attempt is made to use the student's ideas. In classification 4, the student is given positive feedback for what he's said. In classification 5, the teacher actually uses the student's statements or responses in order to carry on the class activity.

Classification 5, Using Student's Ideas: This can be a result of any student talk category. It is more likely to take place when the teacher takes advantage of a student-initiated comment (classification 1) or question (classification 2). If the teacher uses a student response for any classroom purpose, it is coded as a 5. When the teacher goes beyond the student's ideas or interjects his own opinion, it is coded as a 7 (teacher lecture). The question, "Is

the idea that's being stated the student's or the teacher's?" dictates the category to be coded.

In an inquiry-oriented classroom, the teacher typically makes use of student ideas. It is assumed that students are much more likely to "inquire" if their ideas are accepted and/or used by the teacher. If there is to be continuous student-initiated talk, the teacher must use the student's ideas. Generally, a 3 will be followed by a 4 since a definite answer is called for. When a student initiates his own statement, the teacher's response may very likely be a 5. In either case, 4's and 5's are highly desirable reactions to student-initiated responses.

Classification 6, Teacher Questions: The teacher is directing students to recite or respond. The questions may be of various types (open-ended inquiry or factual). Regardless, they are coded as 6's. Any time a teacher asks a question that calls for a student response (as part of the lesson), it is coded as a 6. Rhetorical questions and sarcastic questions framed to criticize the student or justify the teacher's authority are not classified as 6's, but as 9's. If a question is posed to give a student negative or positive reinforcement, it should be categorized appropriately. The tone of the teacher's voice may indicate the category to be coded.

Obviously, teacher questions can be of various types and can often be stated in such diverse ways that they could properly be placed in any of six classes. The criterion to be used in coding must be the effect of the question on the student. In general, teacher questions will be coded as 6's, but it is necessary to remember that they may also be 4's, 5's, 7's, 8's, or 9's.

Examples:

Classification 4, Positive Reinforcement
"Do all of you appreciate what Fred has just said?"

Classification 5, Using Student Ideas
"Tom, what does Bill mean?"

Classification 6, Teacher Questions
"What is your definition of science?"

Classification 7, Teacher Lecture
"What information is needed now?"
"Shouldn't we know. . . ."

Classification 8, Directing Students
"Charlie, will you shut the door?"

Classification 9, Negative Reinforcement
"What in the world are you doing?"

Teacher Talk Non-Inquiry Promoting Behavior

Classification 7, Teacher Lecture: The teacher is giving students opinions, facts, and information. In the traditional classroom, this is the most frequently used classification. When a

teacher is communicating his own ideas, classification 5 is used. It often becomes difficult tc determine if the teacher is giving directions or lecturing. Again, it is necessary to determine the effect of the teacher's talk upon the students. The difference lies in whether the teacher is communicating procedural or conceptual information. Quite often, another classification is followed by a 7, when the teacher begins communicating his own thoughts. It is essential in coding to determine the intent of the teacher. If any teacher talk does not logically fit into any other classification, it should be coded as a 7.

Classification 8, Directing Students: This classification is used when teachers give commands or directions to the students as to procedures or assignments. The intent of the teacher determines whether direction (8) or criticism (9) is coded. "Get out your booklets," could be either an 8 or 9 depending upon the tone of the teacher's voice. It is likewise difficult to always determine if the teacher is directing or lecturing. A teacher's direction can often move into dissemination of information. If the students can be observed, classification is much easier. Directing is often necessary in any classroom. Too much direction by the teacher, however, negates pupil inquiry. Teacher direction is often observed at the beginning or end of the class.

Classification 9, Negative Reinforcement: This classification includes negative feedback to student responses. The teacher is criticizing the student or justifying his authority. In either case, the teacher is attempting to change the student's behavior to a more acceptable form. This classification should be considered as the opposite of classification 4 (Positive Reinforcement). Statements of defense or self-justification by the teacher should be included in this classification. Obviously, an over-abundance of teacher talk in this classification is not conducive to pupil inquiry. The use by the teacher of criticism or authority justification places the teacher in direct control of the classroom. When a student-centered classroom is desired, classification 9 is to be avoided.

Classroom Silence—Constructive Behavior

Classification 10, Silence: This occurs while students think, prepare materials, or do individual and small group work. If the silence taking place in the classroom is of a constructive nature, it should be coded as a 10. Quite often, silence will follow a teacher's question or comment. Very meaningful activity may be taking place in the classroom during periods of silence. The absence of verbal interaction should not be construed as undesirable. Silence will be present in most classrooms in varying degrees.

A 10 should also be used when a different student begins to talk.

Classroom Confusion or Inaudible Behavior

Classification 11, Confusion: This classification is used when the observer cannot understand the verbal behavior taking place in the classroom, or if the verbal behavior of the class is not constructive due to rowdy, overt behavior. This can be considered as a residual classification. Whenever an observer can't understand what is taking place, it should be coded as an 11. The difference between classifications 10 and 11 lies in the constructiveness of the behavior taking place. A careful observer can easily ascertain the difference between silence and confusion.

VIB GROUND RULES

Because of the complexity of the problems involved in classification, several ground rules have been established. These rules of observation aid in developing consistency in categorizing teacher behavior. They have been useful in working in classrooms at all grade levels and in all subject matter areas.

Rule No. 1

When not certain in which of two or more categories a statement belongs, choose the category that is numerically farthest from Category 7. This is true except when one of the two categories in doubt is category 10 or 11, which are never chosen if there is an alternate category under consideration. Because those categories farthest from the center (7) of the category system occur less frequently, the observer maximizes information by choosing the less frequently occurring category (except 10 or 11) when there is a choice. For example, if the observer is not sure whether it is a 4 or a 5, he chooses the 4; if in doubt between a 7 and an 8, he chooses an 8.

Rule No. 2

The observer must not be overly concerned with his own biases or with the teacher's intent. Rather, he must ask himself the question, "What does this behavior mean to the pupils as far as restriction or expansion of their freedom is concerned?" If, when the teacher attempts to be clever, pupils see his statements as criticism of a pupil, the observer uses category 9, rather than category 4. If the teacher, in being sarcastic, says how good the children are, again category 9 is used. If a statement intended as a question has the effect of restricting student's freedom so that it becomes a direction, then it must be classified as a direction (8). The effect of a statement on the pupils, then, and not the teacher's intent, is the crucial criterion for categorizing a statement.

This rule has particular value when applied to the problem of helping teachers to gain insight into their own behavior. In trying to categorize their own tapes, the teachers comment, "But I meant. . . ," or "I was really trying to get the pupils to talk more," or "I think that I wanted them to answer that question," or "I was trying to praise them," or "I meant to use that child's

idea." All these protests indicate that the teacher is thinking about his intent rather than the effect of his behavior on the class members.

The meaning and value of the VIB system for an individual teacher come from the attention given to the effect of teacher behavior on the freedom given to the class. Use of this criterion requires a great deal of training, particularly when a teacher is categorizing a tape of his own teaching. He must learn to be nondefensive about categorizing the behavior. The question is simply, "What category best describes this particular bit of verbal interaction?"

Rule No. 3

If more than one category occurs during the three-second interval, then all categories used in that interval are recorded; therefore, record each change in category. If no change occurs within three seconds, repeat that category number. This rule is concerned with the situation in which statements from two categories occur during a three-second period. Generally, an observer writes down a classification number every three seconds. The pace of recording is generally maintained at a

constant level so that only one category number is written during this period.

However, if there is a change in category during this interval, the observer records the change. Within the three-second interval, for example, the teacher may ask a question, the child answers, and the teacher praises the child. The observer attempts to record all three categories. The third rule, therefore, is that a category number is recorded every three seconds unless the teacher changes categories within the three-second interval. If he changes categories, or if more than one category occurs during the three-second interval, then all categories used in the time period are recorded.

Rule No. 4

Directions (8) are statements that result (or are expected to result) in an observable behavior on the part of children. Examples of directions are "Go to the board," "Read question 3," "Go to your seat," etc. Some teacher statements sound like directions, but cannot be followed by observed student compliance. These statements often precede the actual direction; for example, "Let's get ready now to go to recess" (category 7), "Now

row five get their coats" (category 8).

Rule No. 5

When the teacher calls on a child by name, the observer ordinarily records a 6.

Rule No. 6

If there is a discernible period of silence (at least three seconds), record one 10 for every three seconds of silence, individual study, laughter, board work, small group activities, etc.

Rule No. 7

If the period of silence is not conducive to learning, is not "constructive," and is characterized by overt, rowdy behavior, record an 11.

Rule No. 8

When the teacher repeats a student answer, and the answer is a correct answer, this is recorded as a 4. This tells the student he has the right answer and, therefore, functions as praise.

Rule No. 9

When the teacher repeats a student idea and communicates only that the idea will be considered or accepted as something to be discussed, a 4 is used.

Rule No. 10

Statements such as "uh huh," "yes," "yeah," "all right," "okay," which occur between two 3's are recorded as 4 (Encouragement). These statements function as encouragement and are, therefore, classified as a 4.

Rule No. 11

A teacher joke, which is not made at the expense of the children, is a 4. If the joke makes fun of a child, then it is coded as a 9.

Rule No. 12

Rhetorical questions are not really questions; they are merely part of lecturing techniques and should be categorized as 7's.

Rule No. 13

A narrow question is a signal to expect a 3. If the student gives a specific predictable answer, this is a 3. If the child expands, documents, or justifies his answer,

the observer should continue to record 3's because the teacher was the stimulus for the sequence.

Rule No. 14

A 3 is recorded when several students respond in unison to a narrow question.

Rule No. 15

Record a 2 only when the student is in the act of framing a question. "I have a question, Mr. Jones," is recorded as a 1; "Why is that so, Mr. Jones?" is recorded as a 2.

Rule No. 16

A 10 is recorded to distinguish when a student begins to speak without the teacher interceding. Frequently, student talk (categories 1, 2, and 3) will be followed by talk (1, 2, and 3) from another student without any teacher talk (categories 4, 5, 6, 7, 8, and 9). A 10 should be used to separate one student's talk from the other student's talk.

APPENDIX D

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Do Not Open Until Told To Do So

MINNESOTA TEACHER ATTITUDE INVENTORY

FORM A

Walter W. Cook
University of Minnesota

Carroll H. Leeds
Furman University

Robert Callis
University of Missouri

DIRECTIONS

This inventory consists of 150 statements designed to sample opinions about teacher-pupil relations. There is considerable disagreement as to what these relations should be; therefore, there are no right or wrong answers. What is wanted is your own individual feeling about the statements. Read each statement and decide how YOU feel about it. Then mark your answer on the space provided on the answer sheet. Do not make any marks on this booklet.

If you strongly agree, blacken space under "SA"
If you agree, blacken space under "A"
If you are undecided, or uncertain, blacken space under "U"
If you disagree, blacken space under "D"
If you strongly disagree, blacken space under "SD"

Think in terms of the general situation rather than specific ones. There is no time limit, but work as rapidly as you can. PLEASE RESPOND TO EVERY ITEM.

Copyright 1951 by The Psychological Corporation

SA—Strongly agree
A—Agree

U—Undecided or uncertain

D—Disagree
SD—Strongly disagree

---

1. Most children are obedient.

2. Pupils who "act smart" probably have too high an opinion of themselves.

3. Minor disciplinary situations should sometimes be turned into jokes.

4. Shyness is preferable to boldness.

5. Teaching never gets monotonous.

6. Most pupils don't appreciate what a teacher does for them.

7. If the teacher laughs with the pupils in amusing classroom situations, the class tends to get out of control.

8. A child's companionships can be too carefully supervised.

9. A child should be encouraged to keep his likes and dislikes to himself.

10. It sometimes does a child good to be criticized in the presence of other pupils.

11. Unquestioning obedience in a child is not desirable.

12. Pupils should be required to do more studying at home.

13. The first lesson a child needs to learn is to obey the teacher without hesitation.

14. Young people are difficult to understand these days.

15. There is too great an emphasis upon "keeping order" in the classroom.

16. A pupil's failure is seldom the fault of the teacher.

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

---

17. There are times when a teacher cannot be blamed for losing patience with a pupil.

18. A teacher should never discuss sex problems with the pupils.

19. Pupils have it too easy in the modern school.

20. A teacher should not be expected to burden himself with a pupil's problems.

21. Pupils expect too much help from the teacher in getting their lessons.

22. A teacher should not be expected to sacrifice an evening of recreation in order to visit a child's home.

23. Most pupils do not make an adequate effort to prepare their lessons.

24. Too many children nowadays are allowed to have their own way.

25. Children's wants are just as important as those of an adult.

26. The teacher is usually to blame when pupils fail to follow directions.

27. A child should be taught to obey an adult without question.

28. The boastful child is usually over-confident of his ability.

29. Children have a natural tendency to be unruly.

30. A teacher cannot place much faith in the statements of pupils.

31. Some children ask too many questions.

32. A pupil should not be required to stand when reciting.

33. The teacher should not be expected to manage a child if the latter's parents are unable to do so.

SA—Strongly agree
A—Agree

U—Undecided or uncertain

D—Disagree
SD—Strongly disagree

---

34. A teacher should never acknowledge his ignorance of a topic in the presence of his pupils.

35. Discipline in the modern school is not as strict as it should be.

36. Most pupils lack productive imagination.

37. Standards of work should vary with the pupil.

38. The majority of children take their responsibilities seriously.

39. To maintain good discipline in the classroom a teacher needs to be "hard-boiled."

40. Success is more motivating than failure.

41. Imaginative tales demand the same punishment as lying.

42. Every pupil in the sixth grade should have sixth grade reading ability.

43. A good motivating device is the critical comparison of a pupil's work with that of other pupils.

44. It is better for a child to be bashful than to be "boy or girl crazy."

45. Course grades should never be lowered as punishment.

46. More "old-fashioned whippings" are needed today.

47. The child must learn that "teacher knows best."

48. Increased freedom in the classroom creates confusion.

49. A teacher should not be expected to be sympathetic toward truants.

50. Teachers should exercise more authority over their pupils than they do.

SA—Strongly agree A—Agree	U—Undecided or uncertain	D—Disagree SD—Strongly disagree

51. Discipline problems are the teacher's greatest worry.

52. The low achiever probably is not working hard enough and applying himself.

53. There is too much emphasis on grading.

54. Most children lack common courtesy toward adults.

55. Aggressive children are the greatest problems.

56. At times it is necessary that the whole class suffer when the teacher is unable to identify the culprit.

57. Many teachers are not severe enough in their dealings with pupils.

58. Children "should be seen and not heard."

59. A teacher should always have at least a few failures.

60. It is easier to correct discipline problems than it is to prevent them.

61. Children are usually too sociable in the classroom.

62. Most pupils are resourceful when left on their own.

63. Too much nonsense goes on in many classrooms these days.

64. The school is often to blame in cases of truancy.

65. Children are too carefree.

66. Pupils who fail to prepare their lessons daily should be kept after school to make this preparation.

67. Pupils who are foreigners usually make the teacher's task more unpleasant.

SA—Strongly agree
A—Agree
U—Undecided or uncertain
D—Disagree
SD—Strongly disagree

---

68. Most children would like to use good English.

69. Assigning additional school work is often an effective means of punishment.

70. Dishonesty as found in cheating is probably one of the most serious of moral offenses.

71. Children should be allowed more freedom in their execution of learning activities.

72. Pupils must learn to respect teachers if for no other reason than that they are teachers.

73. Children need not always understand the reasons for social conduct.

74. Pupils usually are not qualified to select their own topics for themes and reports.

75. No child should rebel against authority.

76. There is too much leniency today in the handling of children.

77. Difficult disciplinary problems are seldom the fault of the teacher.

78. The whims and impulsive desires of children are usually worthy of attention.

79. Children usually have a hard time following instructions.

80. Children nowadays are allowed too much freedom in school.

81. All children should start to read by the age of seven.

82. Universal promotion of pupils lowers achievement standards.

83. Children are unable to reason adequately.

SA—Strongly agree
A—Agree

U—Undecided or uncertain

D—Disagree
SD—Strongly disagree

---

84. A teacher should not tolerate use of slang expressions by his pupils.

85. The child who misbehaves should be made to feel guilty and ashamed of himself.

86. If a child wants to speak or to leave his seat during the class period, he should always get permission from the teacher.

87. Pupils should not respect teachers any more than any other adults.

88. Throwing of chalk and erasers should always demand severe punishment.

89. Teachers who are liked best probably have a better understanding of their pupils.

90. Most pupils try to make things easier for the teacher.

91. Most teachers do not give sufficient explanation in their teaching.

92. There are too many activities lacking in academic respectability that are being introduced into the curriculum of the modern school.

93. Children should be given more freedom in the classroom than they usually get.

94. Most pupils are unnecessarily thoughtless relative to the teacher's wishes.

95. Children should not expect talking privileges when adults wish to speak.

96. Pupils are usually slow to "catch on" to new material.

97. Teachers are responsible for knowing the home conditions of every one of their pupils.

SA—Strongly agree
A—Agree
U—Undecided or uncertain
D—Disagree
SD—Strongly disagree

---

98. Pupils can be very boring at times.

99. Children have no business asking questions about sex.

100. Children must be told exactly what to do and how to do it.

101. Most pupils are considerate of their teachers.

102. Whispering should not be tolerated.

103. Shy pupils especially should be required to stand when reciting.

104. Teachers should consider problems of conduct more seriously than they do.

105. A teacher should never leave the class to its own management.

106. A teacher should not be expected to do more work than he is paid for.

107. There is nothing that can be more irritating than some pupils.

108. "Lack of application" is probably one of the most frequent causes for failure.

109. Young people nowadays are too frivolous.

110. As a rule teachers are too lenient with their pupils.

111. Slow pupils certainly try one's patience.

112. Grading is of value because of the competition element.

113. Pupils like to annoy the teacher.

114. Children usually will not think for themselves.

115. Classroom rules and regulations must be considered inviolable.

SA—Strongly agree
A—Agree

U—Undecided or uncertain

D—Disagree
SD—Strongly disagree

---

116. Most pupils have too easy a time of it and do not learn to do real work.

117. Children are so likeable that their shortcomings can usually be overlooked.

118. A pupil found writing obscene notes should be severely punished.

119. A teacher seldom finds children really enjoyable.

120. There is usually one best way to do school work which all pupils should follow.

121. It isn't practicable to base school work upon children's interests.

122. It is difficult to understand why some children want to come to school so early in the morning before opening time.

123. Children that cannot meet the school standards should be dropped.

124. Children are usually too inquisitive.

125. It is sometimes necessary to break promises made to children.

126. Children today are given too much freedom.

127. One should be able to get along with almost any child.

128. Children are not mature enough to make their own decisions.

129. A child who bites his nails needs to be shamed.

130. Children will think for themselves if permitted.

131. There is no excuse for the extreme sensitivity of some children.

SA—Strongly agree
A—Agree

U—Undecided or uncertain

D—Disagree
SD—Strongly disagree

---

132. Children just cannot be trusted.

133. Children should be given reasons for the restrictions placed upon them.

134. Most pupils are not interested in learning.

135. It is usually the uninteresting and difficult subjects that will do the pupil the most good.

136. A pupil should always be fully aware of what is expected of him.

137. There is too much intermingling of the sexes in extra-curricular activities.

138. The child who stutters should be given the opportunity to recite oftener.

139. The teacher should disregard the complaints of the child who constantly talks about imaginary illnesses.

140. Teachers probably over-emphasize the seriousness of such pupil behavior as the writing of obscene notes.

141. Teachers should not expect pupils to like them.

142. Children act more civilized than do many adults.

143. Aggressive children require the most attention.

144. Teachers can be in the wrong as well as pupils.

145. Young people today are just as good as those of the past generation.

146. Keeping discipline is not the problem that many teachers claim it to be.

147. A pupil has the right to disagree openly with his teachers.

SA—Strongly agree
A—Agree

U-Undecided
or uncertain

D—Disagree
SD—Strongly disagree

148. Most pupil misbehavior is done to annoy the teacher.

149. One should not expect pupils to enjoy school.

150. In pupil appraisal effort should not be distinguished from scholarship.

APPENDIX E

ROKEACH'S DOGMATISM SCALE
FORM E

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your "personal opinion." We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3 or -1, -2, -3, depending on how you feel in each case.

+1 = I agree a little

+2 = I agree pretty much

+3 = I agree very much

-1 = I disagree a little

-2 = I disagree pretty much

-3 = I disagree very much

+1 = I agree a little
+2 = I agree pretty much
+3 = I agree very much

-1 = I disagree a little
-2 = I disagree pretty much
-3 = I disagree very much

___ 1. The United States and Russia have just about nothing in common.

___ 2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

___ 3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

___ 4. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

___ 5. Man on his own is a helpless and miserable creature.

___ 6. Fundamentally, the world we live in is a pretty lonesome place.

___ 7. Most people just don't give a "damn" for others.

___ 8. I'd like it if I could find someone who would tell me how to solve my personal problems.

___ 9. It is only natural for a person to be rather fearful of the future.

___10. There is so much to be done and so little time to do it in.

___11. Once I get wound up in a heated discussion, I just can't stop.

___12. In a discussion, I often find it necessary to repeat myself several times to make sure I am being understood.

___13. In a heated discussion, I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

+1 = I agree a little
+2 = I agree pretty much
+3 = I agree very much

-1 = I disagree a little
-2 = I disagree pretty much
-3 = I disagree very much

___14. It is better to be a dead hero than to be a live coward.

___15. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

___16. The main thing in life is for a person to want to do something important.

___17. If given the chance, I would do something of great benefit to the world.

___18. In the history of mankind there have probably been just a handful of really great thinkers.

___19. There are a number of people I have come to hate because of the things they stand for.

___20. A man who does not believe in some great cause has not really lived.

___21. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

___22. Of all the different philosophies which exist in this world there is probably only one which is correct.

___23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.

___24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

___25. When it comes to differences of opinions in religion, we must be careful not to compromise with those who believe differently from the way we do.

___26. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

+1 = I agree a little bit
+2 = I agree pretty much
+3 = I agree very much

-1 = I disagree a little bit
-2 = I disagree pretty much
-3 = I disagree very much

___27. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

___28. In times like these, it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

___29. A group which tolerates too much difference of opinion among it's own members cannot exist for long.

___30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

___31. My blood boils whenever a person stubbornly refuses to admit he's wrong.

___32. A person who thinks primarily of his own happiness is beneath contempt.

___33. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

___34. In this complicated world of ours, the only way we can know what's going on in it is to rely on leaders or experts who can be trusted.

___35. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

___36. In the long run, the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

___37. The present is all too often full of unhappiness. It is only the future that counts.

___38. If a man is to accomplish his mission in life, it is sometimes necessary to gamble "all or nothing at all."

+1 = I agree a little bit
+2 = I agree pretty much
+3 = I agree very much

-1 = I disagree a little bit
-2 = I disagree pretty much
-3 = I disagree very much

___39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

___40. Most people just don't know what's good for them.

APPENDIX F

VALUES CONCERNING DISADVANTAGED PUPILS

QUESTIONNAIRE

VDPQ

Instructions: Following you will find a series of 42 statements. Each statement is designed to express a point of view, attitude, belief, or value about disadvantaged pupils. It is expected that you will react to the different statements both positively and negatively in varying degrees.

You are being asked to indicate the extent to which you accept or reject a given statement. The scale to the right of each item is for recording your position.

This instrument has been designed to enable you to record your response in the easiest possible way. All of the statements call for you to circle the response you deem appropriate. Please respond to each item. Your cooperation is greatly appreciated. Thank you.

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Item	Statement	Teacher Response				
		Accept Completely	Accept Moderately	Feel Neutral	Reject Moderately	Reject Completely
1.	A major characteristic of the disadvantaged child is a strong perception of self.	AC	AM	FN	RM	RC
2.	Social class is the most important single factor related to achievement test scores.	AC	AM	FN	RM	RC
3.	The lower social class pupil typically values the competition and scholastic achievement implicit in academic tests.	AC	AM	FN	RM	RC
4.	Disadvantaged pupils generally achieve better in a single social class setting.	AC	AM	FN	RM	RC
5.	Alientation between the disadvantaged pupil and the teacher is decreased by the child's concept of the teacher as a success in the existing culture.	AC	AM	FN	RM	RC
6.	A disadvantaged child's social acceptance by his superiors is a more important influence in directing and modifying his value orientation and his behavior than is the acceptance of his peer group.	AC	AM	FN	RM	RC

7. Teachers' responses to high social status children differ from their responses to those with low social status in that teachers are more likely to positively evaluate those children they perceive as being of low social status. AC AM FN RM RC

8. The disadvantaged pupil is typically well prepared to understand and cope with the value orientations and behavioral expectations of his teachers. AC AM FN RM RC

9. Upper- and middle-class children, in general, adjust reasonably well to the social and academic demands of the school situation, while lower-class children in varying degrees tend toward maladjustment and failures. AC AM FN RM RC

10. Children from lower socio-economic strata are apt to be found as a large proportion of those who lack facility with formal language. AC AM FN RM RC

11. The school is the most significant agent for influencing the general socialization of the child. AC AM FN RM RC

12. The aim of many teachers of disadvantaged pupils is to impose or sell their own personal hopes and values to the pupil. AC AM FN RM RC

13. Many disadvantaged pupils perceive the school as an authoritarian institution rather than a place for learning. AC AM FN RM RC

14. The content of American cultural and social norms, if known, is meaningful to many of the pupils from the lower socio-economic strata. AC AM FN RM RC

15. Most pupils characterized as disadvantaged are members of a middle socio-economic class. AC AM FN RM RC

16. The degree of acceptable social deviation does not bear a close relationship to the socio-economic classes of the people concerned. AC AM FN RM RC

17. The traditional emphasis in schools on cognitive learning appears relevant to most disadvantaged pupils. AC AM FN RM RC

18. Teaching disadvantaged pupils does not require specialized preservice and inservice training for teachers. AC AM FN RM RC

19. The image which most people have of the elementary school teaching disadvantaged pupils is an image dominated by men. AC AM FN RM RC

20. For many disadvantaged pupils, it is the school and not the home life of the child that is the principal contributor of his failure. AC AM FN RM RC

21. Subject matter itself is of great consequence with regard to changing the attitudes of disadvantaged pupils. AC AM FN RM RC

22. Existing standardized intelligence tests tend to be biased against black children to an unknown degree. AC AM FN RM RC

23. Teachers who cannot get ego gratification from student accomplishment learn to get it from student failure, and therefore resort to strategies designed to perpetuate failure. AC AM FN RM RC

24. Parental participation in meetings, discussions, and field trips provide neutral results in terms of improved parental and pupil attitudes toward school. AC AM FN RM RC

25. The training of teachers of disadvantaged pupils should emphasize the accumulation of facts rather than the structure of knowledge. AC AM FN RM RC

26. When a child from a disadvantaged background is treated as uneducable, on the basis of low test scores, he tends to become more uneducable and the low test score is reinforced. AC AM FN RM RC

27. The socio-economic class and family background of the pupil may exert more influence upon his scholastic achievement than the school which he attends. AC AM FN RM RC

28. The minority groups which include large numbers of disadvantaged youth have language problems which are substantially the same as those of the typical white middle-class pupils. AC AM FN RM RC

29. The cultural patterns established within the classroom are, for the most part, compatible to those of the disadvantaged pupils. AC AM FN RM RC

30. The pupil from the inner-city is viewed by teachers as one whose values and behavior must be changed so that they conform to the dominant middle-class expectations of American society. AC AM FN RM RC

31.	The deductive (moving from the general to the specific) method of teaching is consistently more effective than the inductive (moving from the specific to the general) method with disadvantaged pupils.	AC AM FN RM RC
32.	The disadvantaged pupil generally shows the most intellectual retardation in the area of arithmetic development.	AC AM FN RM RC
33.	The language of the disadvantaged pupil is less concrete, less expressive, and less informal than that of the middle-class pupil.	AC AM FN RM RC
34.	Disadvantaged pupils are usually systematically frustrated rather than aided by most of the existing public school systems due to the differences of background, culture, and experience.	AC AM FN RM RC
35.	Disadvantaged children are intellectually inferior to middle-class children by the time they enter school and as school continues through the years the gap diminishes.	AC AM FN RM RC
36.	The expectations of pupil achievement which teachers hold for disadvantaged pupils play a crucial role in terms of their academic achievement.	AC AM FN RM RC
37.	Black students' reading abilities are not on a par with white children of comparable background.	AC AM FN RM RC
38.	Meaningful ethnic differences in intelligence do not exist.	AC AM FN RM RC

39. Disadvantaged pupils see the school as an agency attempting to teach unimportant things. AC AM FN RM RC

40. Disadvantaged pupils see the school as an agency attempting to make them something they would like to be. AC AM FN RM RC

41. For lower-class children, a present-time orientation (immediate gratification pattern) is more often central in their conceptual schema. AC AM FN RM RC

42. A disadvantaged child's lack of facility in oral expression is caused primarily by low intelligence. AC AM FN RM RC

THANK YOU FOR YOUR COOPERATION!

APPENDIX G

AN INVENTORY OF TEACHER KNOWLEDGE OF READING

Instructions: Before each statement listed below indicate by circling "Yes" if you consider the comment correct and by circling "No" if you consider the comment incorrect.

Yes No 1. In both the individualized and the language-experience approaches to reading instruction, the systematic, sequential presentation of skills is a strong feature.

Yes No 2. The effectiveness of the individualized approach to reading depends to a large degree upon the pupil's self-motivation.

Yes No 3. The language-experience approach to reading has been used most effectively on the intermediate grade level.

Yes No 4. One strength of the basal reader approach to reading is that once children have been grouped for reading and given a reader of a particular level, further differentiation of instruction is unnecessary.

Yes No 5. The use of a series of basal readers exemplifies a teacher's commitment to eclectic teaching.

Yes No 6. At least one of the outcomes of the use of i.t.a. is that it seems to promote early writing fluency.

Yes No 7. The building of experience charts is an important early step in reading instruction regardless of the approach used.

Yes No 8. Linguists stress the fact that reading occurs when the reader associates meaning with symbols and puts that meaning into an organized pattern.

Yes No 9. The use of a basal reader program assumes the organization of the class into three instructional groups.

Yes No 10. The more effective the reading instruction is, the wider the range of achievement will be as the child progresses from grade to grade.

Yes No 11. The competencies involved in learning to read and reading to learn should be developed concurrently.

Yes No 12. Though attitude and behavior changes may take place as a result of reading, this type of development is not considered a teaching function in the reading program.

Yes No 13. Growth in reading does not in and of itself promote growth through reading.

Yes No 14. One has perceived a word when he is able to call it or say it.

Yes No 15. The purpose for which one reads affects the way one reads.

Yes No 16. Reconstruction of meaning requires that readers on all levels bring to their reading a broad background of concepts if adequate comprehension is to occur.

Yes No 17. By definition word perception involves both the recognition of the word form and association of meaning with the word.

Yes No 18. A reader can make a critical reaction to stories and poems as well as to factual content.

Yes No 19. Reading may be defined adequately as the process of extracting meaning from the printed page.

Yes No 20. The goals and methods used and the skills taught in a reading program are contingent upon the teacher's definition of the reading act.

Yes No 21. One may consider himself a mature reader to the extent to which he is able to reconstruct the writer's meaning.

Yes No 22. The development of reading maturity is largely a matter of acquiring proficiency in the skills of reading.

Yes No 23. Though one should react critically to what he reads, it cannot be considered legitimately as part of the reading act.

Yes No 24. It is reasonable to assume that a child who can articulate correctly all of the English phonemes can also differentiate between individual sounds in words.

Yes No 25. In general, it is easier to distinguish differences between consonant phonemes than between vowel phonemes.

Yes No 26. The most important element in any reading program is the teacher not the materials nor the approach.

Yes No 27. The primary emphasis with the individualized approach to reading is the pupil's free selection of reading materials.

Yes No 28. One of the reasons for developing a sight vocabulary is that these words become the basis for the development of sound-symbol relationships.

Yes No 29. If cabo were a real word, the c would be pronounced as k.

Yes No 30. If gible were a real word, the g should be pronounced as the g in gone.

Yes No 31. In the word most, the st is an example of a digraph.

Yes No 32. Vowel sound-symbol relations are ordinarily taught before consonants.

Yes No 33. Practice in the use of the glossary in a reader is a good readiness activity for teaching the use of the dictionary.

Yes No 34. The steps in the teaching of a structural analysis principle are as follows: (1) present the principle, (2) explain and demonstrate the principle, (3) provide practice in its application.

Yes No 35. In the word house, the ou is an example of a diphthong.

Yes No 36. No word that follows regular phonic principles should be introduced as a sight word.

Yes No 37. If the reader has a sound and thorough knowledge of phonics, other word perception techniques would be superfluous.

Yes No 38. Common inflectional endings are s, ly, ed, and tion.

Yes No 39. Structural analysis is helpful in deriving meaning as well as pronunciation of unfamiliar words since the root element tends to retain its meaning in both inflected and derived forms.

Yes No 40. By definition a sight word is a word whose phonic structure is so irregular that it cannot be "sounded out."

Yes No 41. Consonant substitution is the process of "thinking off" consonant sounds in familiar words and "think on" their replacements to derive the pronunciation of an unfamiliar word.

Yes No 42. The indicated pronunciation of rān makes a word with which you are familiar.

Yes No 43. The indicated pronunciation of snô makes a word with which you are familiar.

Yes No 44. The phonic respelling hĕlth makes the word health.

Yes No 45. The phonic respelling flōer makes the word flower.

Yes No 46. The phonic respelling môlt makes the word malt.

Yes No 47. If cumple were a word, the initial sound would be like that in cypher.

Yes No 48. If gustav were a word, the initial sound would be like that in go.

Yes No 49. The chief difference between literal and inferential comprehension is that in the case of the former the reader reconstructs what the writer says, and in case of the latter he reconstructs what the writer believes.

Yes No 50. It is a defensible generalization to say that one teaches comprehension by making use of questions or purposes that require the learner to respond, making use of the skill being taught.

Yes No 51. Inferential comprehension and critical evaluation are essentially the same processes.

Yes No 52. The teaching of critical reading requires the development of attitudes as well as the development of abilities or skills.

Yes No 53. The comprehension program is so organized that certain skills are taught and mastered at each grade level, I through VI.

Yes No 54. Since oral reading is an interpretive activity, its evaluation should be the response indicated by the listeners.

Yes No 55. It is a good practice in teaching oral reading to have those who are not doing the reading follow along in their books silently since this practice develops facility in all the pupils in the group.

Yes No 56. Ordinarily one can get exact meanings better through oral reading than through silent.

Yes No 57. Propaganda analysis is an important type of critical reading that should be taught to young people.

Yes No 58. Because of the demands placed upon the fundamental reading abilities, critical reading should not be introduced before grade III.

Yes No 59. Children will likely not engage in critical reading if purposes are not established that will require them to do this type of reading.

Yes No 60. Possibly one of the most important jobs the teacher has in teaching critical reading is that of helping the reader develop adequate criteria against which he may make a judgment.

Yes No 61. A word is a symbol, and as such it stands for or elicits meaning growing out of the experiences of the reader.

Yes No 62. The use of context to acquire word meanings tends to promote guessing and should be used sparingly, especially on the elementary grade level.

Yes No 63. It is rather difficult to teach critical reading if children are not exposed to materials expressing varying points of view.

Yes No 64. An individualized approach to reading is not as conducive to the teaching of critical reading as is an approach that uses group procedure.

Yes No 65. The proper balance between silent and oral reading might be two-thirds of the class period devoted to silent and one-third to oral.

Yes No 66. One difference which should exist between oral reading in the fifth grade and in the second grade is that a fifth grader should precede his oral reading by silent reading, whereas, the second grader should read the material at sight.

Yes No 67. Because comprehension skills are interrelated it follows that a child proficient in one comprehension skill, such as reading to get the main idea, will also be proficient in other comprehension skills, such as reading to get the main idea and reading to follow directions.

Yes No 68. Oral interpretation should be purposeful; if not, it might as well be deleted from the reading program.

Yes No 69. Building a background of experience through direct or vicarious means in the intermediate grades is especially important since a great deal of the reading children do on this level involves concepts which may be remote from their actual experience.

Yes No 70. Most authorities agree that the use of experience writing on the readiness level involves writing the story on the chalkboard, copying it on tagboard or a large sheet of paper, and using the sentences, phrases, words for the express teaching of sight words.

Yes No 71. Although identical individual patterns of abilities cannot be expected since differences are caused by an interrelated pattern of factors, progress for most children takes place through similar developmental sequences.

Yes No 72. In the initial stages of learning to read the teacher is concerned with helping children build a stock of meaningful sight words which can later be used to develop word perception generalizations through discovery and inductive reasoning.

Yes No 73. Evaluation of reading ability involves both measurement and judgment in appraisal of various skills and abilities for the purpose of providing individual guidance and for the purpose of determining degree to which reading objectives have been achieved.

Yes No 74. The teacher should be careful to supply recreational reading material for children which is on the same level as that which they are receiving instruction in order that growth in reading may take place.

Yes No 75. The relation between the reading of social studies content and science content is such that if the child is a good reader of one the chances are strong that he will be a good reader of the other.

Yes No 76. Study skills can be developed most effectively through instruction in the particular content area where the particular skills are required.

Yes No 77. No one readiness test can assess adequately all of the skills and understandings that are prerequisites for successful reading.

Yes No 78. It would not be unusual for the fourth grade teacher, for example, to find the range of reading achievement in her group to represent all grade levels from

first through sixth.

Yes No 79. However, if she finds the situation as indicated in the preceding statement, she may assume that some poor instruction has been given in the lower grades.

Yes No 80. Since it is the teacher who actually provides for individual differences, it is her attitude toward them and toward children that makes the difference in the quality of her instruction. Whether she is operating in a traditional or innovative environment will not be the important consideration.

Yes No 81. Neither grade acceleration nor retardation will eliminate heterogeneity in achievement within a given grade.

Yes No 82. Homogeneity of achievement varies with the quality of reading instruction. That is, the better the instruction, the more homogeneous the children become.

Yes No 83. Practice shows that standardized reading tests yield a grade placement that is approximate to the actual reading level of the child.

Yes No 84. It should be an accepted practice to complete the preprimers, the primer, and book I by the end of the first grade.

Yes No 85. To insure a high level of validity, an appraisal of reading ability should be carried on in a manner and with materials similar to those employed in actual teaching situations.

Yes No 86. To derive maximum value from the results of a standardized reading test one should make an analysis of individual test items as well as an examination of each child's reading profile.

Yes No 87. A kindergarten child, who through tests and observation is found to be ready for reading should be allowed to begin systematic reading instruction.

Yes No 88. Linguistic reading approaches typically emphasize word order, word function, and other structural elements as the keys to learning to read.

Yes No 89. The achievement tests accompanying the series of reading materials being employed in teaching usually give more help to the teacher than the conventional standardized test.

Yes No 90. When contrasted with the objective nature of standardized tests, the subjective nature of teacher observation limits its use in assessing reading needs.

Yes No 91. Our instructional goal of reading should be that of helping each child achieve to the level of the norm for that grade.

Yes No 92. Though the typical standardized survey reading tests provide useful information about the pupils' levels of achievement, they leave much to be desired in providing detailed information about student strengths and weaknesses in specific reading skills.

Yes No 93. Although many different types of grouping are possible for reading instruction, research has shown that three groups in the classroom are most effective for meeting the needs of individual students.

Yes No 94. Though reading progress for most children follows similar sequences of development, similar levels of achievement on the separate skill strands would hardly be expected of all children in a given grade.

Yes No 95. Teaching the child to read "beyond the facts" is a worthy instructional goal. However, instruction in this area should be postponed until the child is in the middle grades (IV-VI), since teaching him to "get the facts" should be our first concern.

Yes No 96. Evidence from research on the interrelatedness of the language arts indicates the desirability of making reading a part of the total language arts program rather than an isolated part of the curriculum.

Yes No 97. Word perception skills should be taught through words known to the child; later these skills may be applied to unknown words in context.

Yes No 98. One of the limitations of the individualized approach to reading instruction is that it provides little opportunity for children to react to content read by the entire group.

Yes No 99. Though the building of experience charts is a useful teaching procedure in the language experience approach, it has little place in a basal reading program.

Yes No 100. In teaching basal reading through a coordinated series of materials the teaching manual or guidebook should be followed precisely as indicated.

APPENDIX H

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE

A. W. Halpin and D. B. Croft

The items in this questionnaire describe typical behaviors or conditions that occur within an elementary school organization. Please indicate to what extent each of these descriptions characterizes your school. Please do not evaluate the items in terms of "good" or "bad" behavior, but read each item carefully and respond in terms of how well the statement describes your school.

The descriptive scale on which to rate the items is printed at the top of each page. Please read the instructions which describe how you should mark your answers.

The purpose of this questionnaire is to secure a description of the different ways in which teachers behave and of the various conditions under which they must work. After you have answered the questionnaire, we will examine the behaviors or conditions that have been described as typical by the majority of the teachers in your school, and we will construct from this description a portrait of the Organizational Climate of your school.

Marking Instructions

Printed below is an example of a typical item found in the Organizational Climate Description Questionnaire:

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

Teachers call each other by their first names. 1 2 (3) 4

In this example the respondent marked alternative 3 to show that the interpersonal relationship described by this item "often occurs" at his school. Of course, any of the other alternatives could be selected, depending on how often the behavior described by the items does, indeed, occur in your school.

Please circle your response clearly, as in the example.
PLEASE BE SURE THAT YOU MARK EVERY ITEM.

BIOGRAPHICAL INFORMATION

5-7. School _____

Please place a check mark to the right of the appropriate category.

8. Position:
   - Principal___
   - Teacher___
   - Other___

9. Sex:
   - Male___
   - Female___

10. Age:
   - 20-29___
   - 30-39___
   - 40-49___
   - 50-59___
   - 60 or over___

11. Years of experience in education:
   - 0- 9___
   - 10-19___
   - 20-29___
   - 30 or over___

12. Years at this school:
   - 0- 4___
   - 5- 9___
   - 10-19___
   - 20 or over___

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

13.	Teachers' closest friends are other faculty members at this school.	1	2	3	4
14.	The mannerisms of teachers at this school are annoying.	1	2	3	4
15.	Teachers spend time after school with students who have individual problems.	1	2	3	4
16.	Instructions for the operation of teaching aids are available.	1	2	3	4
17.	Teachers invite other faculty to visit them at home.	1	2	3	4
18.	There is a minority group of teachers who always oppose the majority.	1	2	3	4
19.	Extra books are available for classroom use.	1	2	3	4
20.	Sufficient time is given to prepare administrative reports.	1	2	3	4
21.	Teachers know the family background of other faculty members.	1	2	3	4
22.	Teachers exert group pressure on non-conforming faculty members.	1	2	3	4
23.	In faculty meetings, there is a feeling of "let's get things done."	1	2	3	4
24.	Administrative paperwork is burdensome at this school.	1	2	3	4
25.	Teachers talk about their personal life to other faculty members.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

26.	Teachers seek special favors from the principal.	1	2	3	4
27.	School supplies are readily available for use in classwork.	1	2	3	4
28.	Student progress reports require too much work.	1	2	3	4
29.	Teachers have fun socializing together during school time.	1	2	3	4
30.	Teachers interrupt other faculty members who are talking in staff meetings.	1	2	3	4
31.	Most of the teachers here accept the faults of their colleagues.	1	2	3	4
32.	Teachers have too many committee requirements.	1	2	3	4
33.	There is considerable laughter when teachers gather informally.	1	2	3	4
34.	Teachers ask nonsensical questions in faculty meetings.	1	2	3	4
35.	Custodial service is available when needed.	1	2	3	4
36.	Routine duties interfere with the job of teaching.	1	2	3	4
37.	Teachers prepare administrative reports by themselves.	1	2	3	4
38.	Teachers ramble when they talk in faculty meetings.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

39.	Teachers at this school show much school spirit.	1	2	3	4
40.	The principal goes out of his way to help teachers.	1	2	3	4
41.	The principal helps teachers solve personal problems.	1	2	3	4
42.	Teachers at this school stay by themselves.	1	2	3	4
43.	The teachers accomplish their work with great vim, vigor, and pleasure.	1	2	3	4
44.	The principal sets an example by working hard himself.	1	2	3	4
45.	The principal does personal favors for teachers.	1	2	3	4
46.	Teachers eat lunch by themselves in their own classrooms.	1	2	3	4
47.	The morale of the teachers is high.	1	2	3	4
48.	The principal uses constructive criticism.	1	2	3	4
49.	The principal stays after school to help teachers finish their work.	1	2	3	4
50.	Teachers socialize together in small select groups.	1	2	3	4
51.	The principal makes all class-scheduling decisions.	1	2	3	4
52.	Teachers are contacted by the principal each day.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

53.	The principal is well prepared when he speaks at school functions.	1	2	3	4
54.	The principal helps staff members settle minor differences.	1	2	3	4
55.	The principal schedules the work for the teachers.	1	2	3	4
56.	Teachers leave the grounds during the school day.	1	2	3	4
57.	The principal criticizes a specific act rather than a staff member.	1	2	3	4
58.	Teachers help select which courses will be taught.	1	2	3	4
59.	The principal corrects teachers' mistakes.	1	2	3	4
60.	The principal talks a great deal.	1	2	3	4
61.	The principal explains his reasons for criticisms to teachers.	1	2	3	4
62.	The principal tries to get better salaries for teachers.	1	2	3	4
63.	Extra duty for teachers is posted conspicuously.	1	2	3	4
64.	The rules set by the principal are never questioned.	1	2	3	4
65.	The principal looks out for the personal welfare of the teachers.	1	2	3	4
66.	School secretarial service is available for teachers' use.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

67.	The principal runs the faculty meeting like a business conference.	1	2	3	4
68.	The principal is in the building before the teachers arrive.	1	2	3	4
69.	Teachers work together preparing administrative reports.	1	2	3	4
70.	Faculty meetings are organized according to a tight agenda.	1	2	3	4
71.	Faculty meetings are mainly principal report meetings.	1	2	3	4
72.	The principal tells teachers of new ideas he has run across.	1	2	3	4
73.	Teachers talk about leaving the school system.	1	2	3	4
74.	The principal checks the subject-matter ability of teachers.	1	2	3	4
75.	The principal is easy to understand.	1	2	3	4
76.	Teachers are informed of the results of a supervisor's visit.	1	2	3	4
77.	Grading practices are standardized at this school.	1	2	3	4
78.	The principal insures that teachers work to their full capacity.	1	2	3	4
79.	Teachers leave the building as soon as possible at day's end.	1	2	3	4
80.	The principal clarifies wrong ideas a teacher may have.	1	2	3	4